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Original Department.

Lecture.

SYMPTOMS AND TREATMENT OF DIPHTHERITIC PARALYSIS.

Delivered at the Hôpital des Enfants Malades,

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Translated for the Medical and Surgical Reporter.

Gentlemen:—We have at present in the St. Louis ward a young boy, 14 years of age, with diphtheritic paralysis, who presents most of the symptoms usually observed in the disease, and will enable me to give you a brief, yet sufficiently complete, account of this interesting affection.

This boy was admitted to the hospital on October 12th, almost at the same time with his brother and two sisters, all stricken down by diphtheria. He was discharged convalescent on November 2d, but one of his sisters succumbed. It was one of those localized epidemics where direct contagion is the principal factor in the propagation of the disease, and several members of one family are taken down almost at the same time. As for this young lad, the disease in his case was of moderate intensity, the glandular enlargement was not marked, there was no trace of albumen in the urine at any period of the malady, and he was able to leave the hospital after twenty days' sojourn.

For twenty days afterward he remained apparently well, but toward the twenty-second day his voice took on a nasal character, resembling that observed in cases where there exists perforation or division of the velum palati; a little later he had some difficulty in swallowing, particularly liquids, which returned by the nose; then, after a few days, he complained of pain about the middle of the forearm, and finally the upper limbs, particularly the left, became more and more feeble, he was awkward in using them, and was apt to let fall anything held in the hand.

Eight days since he observed that he tripped easily in walking, and that the lower limbs became feeble, particularly the left, just like the upper limbs.

Here the motor troubles do not appear to have been preceded by any alteration of tactile sensibility; the patient says that at first he had double vision, but of this there is now no trace.

At present, as you have observed in the ward, the paralysis has extended to the muscles of the thorax, for the boy can no longer sustain the weight of the head, and lifts himself in bed with great difficulty.

I will, however, examine the patient in your presence, so that you will be better able to follow the enumeration of symptoms and make the study of the case, as it were, *de visée*. You remark the nasal intonation of the voice and the difficult and indistinct articulation. He cannot blow out the cheeks by holding air in the mouth, on account of the imperfect contraction of the orbicularis oris, and also on account of the paralysis of the velum palati, which permits the air to escape by the nares. He can hardly extinguish a candle, because in the effort a considerable portion of the air escapes through the nose. The boy can no longer whistle, partly on account of the paralysis of the orbicularis oris, but especially because the floating velum palati can no longer completely obstruct the posterior opening of the nasal passage; what proves this, is the fact that

if the nose is compressed between the fingers, the boy can whistle longer, but not perfectly.

If he attempts to take a draught of water a part returns through the nose; another proof that at the moment when contraction is produced by deglutition, the velum palati is incapable of closing completely the posterior orifice of the nares, whence the reflux of liquids.

At this moment, also, a part of the same liquid should enter the larynx and induce cough, but such is not the case, and the patient informs us that this rarely happens; whence we may conclude that the occlusion of the larynx is sufficiently complete, which is not often the case in this malady, for ordinarily, each attempt at deglutition of liquids induces repeated and painful attacks of cough. The patient does not sneeze when the mucous membrane lining the nares is irritated, nor does he seem to feel the passage of liquids, an indirect proof that there is anæsthesia of these mucous surfaces. He is totally unable to gargle, for as soon as any liquid arrives in the pharynx it is either immediately swallowed or rejected through the nose, as the muscles of this region do not contract firmly and harmoniously enough to retain the liquid and agitate it in the throat, as is necessary when a gargle is used.

From this ensemble of symptoms we may conclude that there is paralysis of sensibility as well as motility; this can be seen by direct inspection, when it will be seen that the soft palate is fallen, and is but little contracted, when the patient attempts to emit the sounds ah and oh. It can also be touched with a feather, without inducing contraction, and this experiment does not produce, by reflex action, any efforts at vomiting, which would infallibly ensue if the velum palati and the surrounding mucous membrane were in the normal condition.

If, however, the feather is pushed as far as the pharynx, efforts at vomiting ensue, showing that the contact of the foreign body is felt and transmitted to the nervous centres. There exists, then, in this child, almost complete paralysis of the velum palati, affecting its sensibility and contractility; paralysis of the same nature but less advanced, of the pharynx; incomplete paralysis or notable feebleness of the orbicularis oris and buccinator.

The tongue is agitated as in general paralysis. You will notice also that there seems to be no expression to the face, that the boy has almost the aspect of an idiot, although he is very intelligent. He can smile but imperfectly; the facies is that of a statue; this condition I can only explain by the supposition that there exists paralysis, or rather, paresis of the entire muscular apparatus of the face.

If we now proceed to the examination of the limbs and thorax here is what we find:—

There is marked analgesia of the forearm, which diminishes as we mount toward the root of the limb. The patient feels the contact of different objects, and determines their temperature better over certain points. We find, then, in general, that there is diminution of tactile sensibility more marked over the parts where the patient first complained of pain. For the lower limbs the sensory troubles appear, as in the upper, more marked toward the extremities, but irregularly distributed; that is, tactile sensibility is completely gone at one point while it is normal just beside it.

The pressure of the hand is very feeble, particularly with the left, and he can lift nothing of any weight. It is probable that the dynamometer would show a notable diminution in the force of muscular contractility, as has been shown by Trousseau. But what is not less remarkable is the default in precision of muscular contractions; the hands are shaking and agitated, as in general paralysis, and the patient can hardly take up any small object. He can take with ease a tumbler, but he has great difficulty in controlling the motions of the fingers and bringing them together with sufficient precision to pick up a pin from the table. There exists, then, very marked paresis, and, as it appears to me, a certain degree of incoördination of movement.

For the inferior limbs the motor troubles are yet more marked, or, at least, more evident. The patient can sustain himself on his limbs if he has something to lean on, but if he attempts to walk, he trembles and stumbles, and would certainly fall if not held up. The left leg drags, and is manifestly feebler than the right, so that though this state of paresis seems almost generalized, there yet exists a certain degree of hemiplegia, which would lead us to admit that if there is, as I believe, any material lesion of the nerve centres, it would predominate on the right side if cerebral, on the left side if below the crossing of the pyramids.

There is some incoördination of movement, the patient throwing his limbs about, as in ataxia; he does not well feel the ground under his feet, and walks better when he can follow the motions of the limbs with his eyes. It is certain that the diminution of sensibility and the enfeebled sense of muscular contraction are very important factors in producing these paralytic manifesta-

tions, for when the patient is lying down considerable effort is necessary to flex the limb or to extend it when flexed.

This incomplete paralysis is generalized; all the muscles of the thorax, even, seem affected; it is with difficulty that the boy lifts his head from the pillow, and it is only after great efforts, and rolling from right to left, that he can manage to place himself in a sitting posture in the bed.

The muscles of organic life do not appear to be affected; the patient has been extremely constipated, and there may, perhaps, exist some degree of paralytic inertia of the intestines. The upper eyelids are somewhat fallen, but as there exists granular conjunctivitis, this may explain the incomplete blepharoptosis. The pupil is not dilated, and ophthalmoscopic examination reveals no alteration of the interior of the eye.

There is no trace of albumen in the urine, and there never has been, even during the course of the primary malady.

The symptoms observed in this case are sufficiently typical to give you a complete idea of the malady, and we will now be able to consider the proper course of treatment.

Treatment.—Attention must first be paid to the general health, for such patients are usually in a state of profound anæmia when convalescent from a more or less intense attack of diphtheria, as you must have often remarked in the wards of this hospital. They are pale and feeble, and you will generally find a blowing murmur in the cervical vessels. And this anæmic condition is generally more marked in cases where paralysis follows diphtheria, so that I am in the habit of giving the muriated tincture of iron to such patients, in doses of from five to fifteen drops. In conjunction with iron, I have found the arsenical preparations of great advantage. The preparation most frequently employed in this hospital is the liquor potassii arsenitis, or Fowler's solution, of which the dose may be carried, without difficulty and gradually, to ten or twelve drops per diem, for a child of from five to eight years of age. The two medicaments may be given conjointly at meal times, in a little wine.

As you can well understand, the syrup of the iodide of iron and the ferruginous elixir of M. Rabuteau also answer all the indications for treatment. I also administer during the day, by dessertspoonfuls, a brandy mixture containing thirty grains of extract of quinquina (Fr. codex), and eight or ten minims of tincture of nux vomica. If the tincture induces vomiting, it may be necessary to omit it, or it may be advantageously replaced by some preparation containing sulphate of strychnia, such as the syrup of the French codex, which contains $\frac{1}{15}$ of a grain in one teaspoonful, and is easily taken and well supported by the stomach. At the same time the more generous wines may be allowed.

When the paralysis is generalized, I make use of the continuous electric current, placing the positive pole over the cervical region and the negative at the lower part of the vertebral column, or on one of the limbs.

M. Trouvé has constructed small electric machines of six elements, which are not above the means of most families, and nothing is more simple than to instruct some one about the patient in the use of this little apparatus.

These continuous currents may be maintained for hours if but four elements are used; when six are employed the machine should not be left so long in action. It has seemed to me that in cases where the paralysis was very marked this means of treatment proved of great utility.*

When I consider that the diaphragm is enfeebled, I make use of electricity, so that the current will traverse that muscle; and in the same way when there is paralysis of the intrinsic muscles of the larynx. In order to act on the nerve extremities, and, consequently, on the paralysis, dry friction or massage should be made over the entire body, with the hand simply covered with a glove or with a soft woolen brush; frictions with a horse-hair glove are much too rude. The woolen glove used for the frictions may often, with advantage, be first wetted in some alcoholic solution; in such case the massage produces a sensation of cold, which is soon followed by general reaction, which much invigorates the patient.

Or a large flannel gown may be made so as to fasten about the child's neck, and he may then be subjected to a species of vapor bath, gum benzoin or juniper berries being burned on a small brazier placed so that the fumes mount under the gown; while this is going on the little patient can be vigorously rubbed through the flannel. This cannot be done at the hospital, and we are obliged to content ourselves with salt water and other baths. When recovery is slow and the season permits, nothing is more apt to hasten it than a sojourn at the seaside, with sea bathing.

When paralysis of the pharynx induces pronounced dysphagia, it should receive most careful attention from the physician, particularly if tracheotomy has been performed and the wound in the throat is still open. Remembering that compact substances are most easily swallowed,

thick soups and macaroni cooked in milk may be given, and drinks may be administered slowly with a spoon. If the wound in the trachea is still open, it will be necessary to occlude the orifice while the child drinks, for deglutition is easier where this is done. But the children are often completely spent by fruitless endeavors to satisfy their thirst, and also fatigued by the constant fits of coughing at each attempt to swallow, so that they finally refuse all species of liquid, and there is great difficulty to introduce sufficient food to keep them alive. In such cases very thick soups may be given, which are at the same time an aliment and a drink. These may be thickened with the different lichens, Irish moss, etc., or with gelatine.

When the patient can swallow nothing, it becomes necessary to introduce food by means of the œsophageal tube, which is not always easy to pass in children. The soft rubber œsophageal tube, such as is made at present, should be used so as to avoid all chances of injuring the soft parts. Concurrently with these means of sustaining the system, analeptic enemata, particularly those compounded with the different peptones, are of very great benefit. Such an enema may be made up as follows:—

℞. Salep, gr. xxx
Thin beef soup, without salt, ℥ivss
Yolk of egg, No. j or ij. M.

By means of an electric current passing by the larynx, deglutition has been facilitated, and the contractility of the intrinsic muscles of the larynx awakened. The paralysis of the diaphragm should be combated with perseverance, by means of the electric current, and this paralysis should receive special attention, as it is one of the direct causes of death.

Strabismus and blepharoptosis should also be treated by electricity, but here there is less urgency, as these are of little importance, and always finally disappear. The visual troubles induced by the default in accommodation are corrected by a collyrium containing eserine:—

℞. Sulphate of eserine, gr. v
Aquæ destil., f℥j. M.

A few drops in the eye, morning and evening.

Here again there is little need of therapeutic intervention, for the visual troubles are always fugacious and disappear completely after a certain length of time.

—The Paris Académie des Sciences has awarded the Grand Prix Lecaze, of the value of $2000, to Professor Brown-Sequard, as a reward for a lifetime devoted to physiological research.

COMMUNICATIONS.

THE EPIDEMIC OF RÖTHELN IN SUMTER CO., ALABAMA, IN 1880.

BY EDWARD H. SHOLL, M.D.,
Of Gainesville, Ala.

From the Alabama State Medical Transactions of 1881.

Having found it impracticable, after careful inquiry, to definitely fix any facts in reference to the time and place when this disease first made its appearance in Sumter county, it may be well to state in the outset that the portrayal of the disease herewith given is drawn from personal observation and tangible practical experience.

The first case seen was in April, 1880, the last one three days since, February 15th, 1881. Through all those ten months there has been more or less of it, quiescent sometimes for two months, then breaking out afresh some miles away, without any direct contact, that could be ascertained, with the previous case.

Definition.—An eruptive disease of specific character, distinct, separate, of its own kind, and contagious, ushered in by three to four days of discomfort from excess of tears, inflamed eyes, and irritation of nostrils and throat, and greater or less heat of skin.

On the third or fourth day the eruption appears, pinkish, pointed, projecting at first, but in a few hours deepening in its reddish color, and passing from the point to the crescent, and then to irregular shaped and slightly elevated patches of a size varying, according to the severity of the disease, from half to one and a half inches in diameter, lasting from three to ten days, transmissible from the pregnant mother of seven months to her unborn child, and developed in a few days, as I have seen it, after the birth of the child. It is followed by desquamation, which sometimes protracts itself for forty to fifty days.

Pathology.—It is right and in accordance with diseased conditions of the system, that this disease, as specific and distinct in its being and kind, should be remanded to its proper place, and hold it as an entity, a unity in cause, course, result, of its kind, and its own kind, no hybrid, and I would here assign it to its true place in the records of disease, as one and only one in all its various grades, times, places and surroundings.

This I do with all deference to the German, English and Scotch authorities who have written on the subject, for close observation and experience have taught me that time, place and circumstance may modify or give a peculiar livery to a disease, but never blend it into oneness with

another, by which it shall merge its own type, and assume the distinct elements and potentialities of a new disease, as the child, who may intermingle the pronounced features and individualities of its two parents.

In the Cincinnati *Medical News*, of April, 1876, Dr. A. J. Miles gives four reasons for assigning it a place as a distinct disease. The claim that I shall lay for its individuality is based upon a study of the disease in my own person, lasting, from its inception, in May, to the last distinct evidence of peeling, for sixty days, during all which time I watched its varying manifestations with a precision that cannot possibly be accorded to the observer of any disease in another person, for the sense of constant companionship with and service to the disease ceases only during the hours of sleep.

Symptoms.—First, a sense of languor and general discomfort, with depression of spirits, followed in a few hours by shiverings, with slight reduction of heat of skin, which in a few hours rises above the normal standard, attended by red and watery eyes, sneezing, frontal pain, sore throat, constriction of chest, nausea, pain in the back and limbs, with increased frequency of the pulse, and drowsiness, incident to a want of proper decarbonization of the blood, this attributable in its turn to the blood poison and the want of proper aeration of the blood in the lungs already embarrassed by the bronchial trouble.

In my own and all the cases noted, mild or severe in type, the sore throat was the most prominent and distressing symptom. In from seventy-two to ninety-six hours from the first invasion, the eruption, in deep pinkish and distinct points, makes its appearance, first on the face, neck and arms alone, in others gradually covering the whole body, deepening in shade and coalescing in bulk, until it passes in color from a pinkish to a crimson and almost coppery shade, and in form to irregular shaped and elevated patches. These, in every case noticed, followed the order of single points, or a number of points gradually commingling into a concentric shape, as in measles, and lastly into masses of irregular conformity and size.

In my own and other cases of moderate severity, the duration of the eruption, well-marked and defined, was ten days, from which time it gradually disappeared, but could be seen at any time for twenty days thereafter, when the body was relaxed by vigorous exercise on a hot day. During the first four days of the eruption the symptoms are all aggravated, and the amount of discomfort and suffering is vastly beyond what the frequency of the pulse or heat of skin would seem to indicate. The headache is now more pronounced, pain sharp, darting, and most severe above the eyes, rendering it at times, apart from the weak and irritated eyes, almost impossible to hold the eyes open. There is intolerance of light, lids are tumid, lachrymation is increased. The sense of constriction of the chest grows apace, and is annoying, requiring occasional deep inspirations for relief, sometimes accompanied with severe paroxysms of coughing, which, at first dry and husky, are gradually relieved by a moderately free expectoration of frothy mucus. Nausea is a common symptom. Seldom, however, do we have vomiting, except in the effort to clear the throat of the tenacious secretion.

Of all the symptoms, the sore throat is the most constantly present, and is distressing even in some of the mildest cases. It presents a swollen appearance. It varies in color, from a fiery and deep crimson to a livid purple, is intensely congested, with tonsils much enlarged. The effort at swallowing now becomes difficult. A constant secretion of tenacious and tough mucus requires a like almost constant effort to dislodge it, and compels the sufferer to maintain the erect or prone position. Sometimes there is a considerable external swelling. The voice becomes hoarse, husky, and is almost lost. Talking becomes painful, and in the attempt to swallow, which at times is well nigh impossible, there is a forcing back of fluid through the nose, and impending suffocation seems to threaten. In a class of cases more aggravated than I have seen, the increase of a vitiated mucus goes on, the cough becomes constant, the powers of life give way, and the patient dies by suffocation, convulsions, or coma.

No one who has not suffered with the sore throat of this disease can form any suitable idea of its distressingly annoying and painful character, allied as it is with the teasing cough. Wearied with constant effort, unable and afraid to sleep, for fear of suffocation, the sick man turns and tosses, wishes in the morning for night, in the night for morning, and if he steals a moment of rest, wakes from dreams of horror to a reality of misery.

From the fourth to the fifth day after the appearance of the eruption, the symptoms, in case of returning convalescence, begin to decline, and at the expiration of ten days a sense of discomfort and debility alone is left.

I have given the type of a case of ordinary severity. It shades off into light or darkness,

as the attack is less or more severe Some symptoms are absent in mild cases, but the sore throat is present in them all. In my own case no eruption could be found at any stage, save on the face, neck and hands. The temperature range is from 99.3° to 103°. The first was uniform with me for three days of the eruption. The pulse was from 84 to 120. The tongue is ordinarily but slightly coated, is red on tip and edges, with a constant craving for acid drinks, which desire was freely satisfied with lemonade and buttermilk.

The decline of the disease was accompanied with a profuse watery diarrhœa, of a pale yellow color, discharges in thirty-six hours relieving the throat, cough and itching of the skin.

About the twelfth day from the appearance of the eruption, desquamation began and continued for forty-eight days, at the end of which time the last peeling from the hands took place. From the throat and on portions of the face the shedding was by branny scales and rolls. From the hands the process went on slowly by a literal peeling, the inner part of the hand, wherever commonly subjected to pressure, turning a deep saffron yellow prior to the shedding. On the sole of the foot the peeling was confined to the toes; the rest of the foot shed itself in scales.

During the whole period of desquamation I was never well, and though attending to my ordinary duties, did it carrying weight, mind and body alike sluggish, appetite and digestion indifferent, with frequent headaches, and more than ordinarily copious secretion of limpid urine, which, in the morning particularly, scalded the urethra in its passage, and had at times a distinctly ammoniacal odor.

Fortunately, I cannot give any of the anatomical lesions from practical observation. They will be inferred from the nature of the disease, and will be found in the throat, lungs and kidneys.

Diagnosis.—In the initial stage it may be readily separated from scarlet fever by the duration of the premonitory symptoms prior to the appearance of the eruption, as in scarlet fever it is, in the great majority of cases, but twenty-four hours after the premonitory chill before the eruption appears. In this disease it is not seen until the third and fourth days. From measles, it is best distinguished by the almost constant and inevitable attendance of sore throat from the beginning. The eruption appears at first in small points, pinkish, lacking the deep red of scarlet fever, and less diffuse, coalescing afterwards in various sized and somewhat elevated patches, becoming a dark red, which, in fading out, assumes sometimes almost a coppery appearance, and generally not as completely diffused in its character as measles. The duration of the eruption in rötheln, in a case of any severity, is longer than in scarlet fever or measles.

The constant accompaniment of a sore throat, severe in its character beyond other manifestations, defines a sharper element of difference from scarlet fever and measles than any other symptom of the disease, as even in scarlet fever, in mild cases, the soreness of the throat is but little complained of, and in measles is not commonly found.

A peculiar feature of the throat trouble, in cases of any gravity, is the great enlargement of the tonsils, and this, too, out of proportion to other evidences of disease, aggravated, when it goes to this length, by a more or less severe bronchial trouble. The tongue is generally red, with a thin, solid, yellowish or brownish coating, differing from the white-coated and red-pointed tongue of scarlet fever.

In rötheln the pulse is less frequent by far than in scarlet fever of like grade, and ordinarily less than in measles; neither is the temperature as high, for in a limited observation I have never found the temperature to exceed 103°.

The process of desquamation is much as in scarlet fever, though of longer duration, and the scales are not so large, being mostly of a fine branny character, save on the hands and feet.

Cause and Propagation.—What atmospheric and terrene conditions are needful to the development of this disease has not yet been satisfactorily determined, as but few months have elapsed since it first made its appearance in Sumter county, never having been seen before this year, 1880, by any of the physicians now practicing in the county. At the time of its first appearance with us, about the early part of April, there had been a continuous rain-fall, not so excessive in quantity, but constant, with a thermometer higher than the average. We have here the two factors of heat and moisture present on its first appearance, and prolonged for a sufficient number of weeks to delay the usual farm work.

No traceable history of contagion could, with the greatest care of investigation, be found in the first two cases that made their appearance. Those that followed were propagated by the subtle element of contagion, the period of incubation being from five to twelve days. The disease is less contagious than measles or scarlet fever, and has no objective point in its selection

of tenants, affecting white and black alike, with the same general course of symptoms and after consequences.

Treatment.—In mild cases but little medication is needed. In order to meet the throat trouble, give an adult one tablespoonful of a saturated solution of chlorate of potash every three hours, acidulated with ten drops of tincture of iron. In connection with this, three to five grains of sulphate of cinchonidia or quinine may be given every eight hours, as an antipyretic and antiseptic. I have also prescribed with the quinine or cinchonidia, omitting the potash and iron, the sulphite of soda as an anti-zymotic, every three hours, in thirty grain doses, dissolved in sufficient water, reducing the dose if it purges too freely.

In every case, infant or adult, where the secretion of tenacious mucus became constant and distressing, and where the tonsils were enlarged and made swallowing and respiration difficult, I used, in connection with the above specified treatment, the prescription of Dr. Pritzinger, of Pennsylvania, for tonsillitis, which, for many years, and in hundreds of cases, I have employed with the same confidence of breaking up a tonsillitis in its formative stage as I have of averting a malarial chill with the preparations of Peruvian bark, as follows:—

℞.	Potassii chlorat. pulv.,	gr. lx
	Spt. æther. nit.,	ʒ iv
	Tinct. guaiac.,	ʒ xij. M.

Sig.—Dose for adult, teaspoonful, undiluted, every three hours. Shake well. In properly reduced proportion for children and infants. Follow each dose with a few swallows of water.

Beyond this, nothing suggests itself in the management of the general run of cases. Peculiar conditions are to be met as they arise. The nourishment during the height of the disease must necessarily be in liquid form, milk and soup, as the difficulty of swallowing renders solid nourishment inadvisable. It is well to be suitably clothed, to avoid draughts, and during the period of desquamation, to abstain from any unusual causes of stimulation, excitement and fatigue, as there is danger of crippling the kidneys in their work of eliminating the waste of the system.

In rötheln, as in all diseases of its class, the physician must watch his cases closely, and drive his medication, with ready hand, well up to all the requirements. By so doing, the very large proportion of his cases will run their due course to convalescence, and after complications will be avoided.

A PLEA FOR A MEDICAL AID ASSOCIATION.

BY FRED. HORNER, M.D.,

Of Salem, Va.

In the number of the Medical and Surgical Reporter for October 14th, 1876, the question of the organization of an American Medical Brotherhood was briefly discussed and commended; that this subject has during the interval engaged the attention of the profession, the following facts will show.

In 1876, under the auspices of the Philadelphia County Medical Society, an Auxiliary Aid Society was founded, and has been nobly sustained by the efforts of Drs. H. H Smith, Benj. Lee and W. R. D. Blackwood. Ere long this Society will have a handsome and permanent fund, the profits of which promise to secure a respectable amount for distribution to the families of deceased members. The profession in the city of New York have also undertaken a like philanthropic work. Dr. James Anderson is the founder of this society. In the 12th annual report, the president, Dr. Blumenthal, states the permanent fund to be $6254.55, which is deposited in the best saving bank of the city. Since its organization $20,000 has been distributed for the benefit of the widow and orphan. Dr. Blumenthal adds, in his late report, "The amount of comfort conferred and grief and sorrow assuaged by this sum, surely no figures can adequately express." The State Medical Society of Virginia has given its cordial support towards the completion of a Medical Aid Association, whose aim shall be "to obviate the more expensive methods of life insurance, and to assure prompt assistance to the unfortunate, especially to those who have neglected, or are unable to incur the expense of regular insurance." The Mutual Benefit Association of Kentucky, originally undertaken by prominent physicians of that State, requires an admission fee of $10, and the payment of an annual fee of $2, which secures to the family of a deceased member $2500, or to one sick $5 per week, for serious illness or accident. The writer has sought, by correspondence with brother physicians, to elicit from them an expression of opinion on the practicability of an Aid Association for the benefit of the profession of this country. They will pardon the liberty which is herewith assumed, to quote from their letters.

The late President of the American Medical Association, Dr. John Hodgen, of St. Louis, says: "I shall at all times and on all occasions

be pleased to do anything in my power to aid the widows and orphans of deceased members of our profession."

Professor L. A. Sayre: "It is a noble object, and deserves the favorable consideration of every man in the profession. The plan has worked admirably in this city, and would be very good to model after."

Professor N. S. Davis: "The object in view is a good one. Many years since I advocated such an organization, and bestowed upon the matter some thought."

Dr. Blackwood: "We are fully in accord with the effort to establish both a State and National Medical Aid Society. It only requires concentration, to get the matter under way."

Dr. Wendel, Murfreesboro, Tenn.: "Right here in this town we have an instance of an excellent physician who, after forty years' practice, died, and his children are left penniless, and his widow's home was sold last week."

G. B. Thornton, President of the Board of Health, Memphis, Tenn.: "Had not the noble and generous physicians of the city of New York sent us money, during the pestilence of yellow fever in this city, many families of physicians who died would have suffered deplorable want."

Dr. James Anderson, of New York: "Our Association has been of great comfort to many a widow. Yea, and four of the members of it, one a Professor, and one who drove two horses. This Association excites sympathy and affection."

Shall it be deemed extravagant and premature, on the testimony above produced of its acceptance by prominent physicians of various sections of this country, and in view of the fact that in Metropolitan cities, and in several States of the Union, the medical societies have considered the question to be eminently practical, to urge upon the attention of the members of the American Medical Association, possessed as they are of wealth and influence, to make it one for their consideration, and to give their moral support to such an undertaking? It is a matter of surprise that during the long and eventful career of the National Association, during which time they have contributed to the attainment of a high standard of medical education, and annually conferred upon plans for the relief of their fellowmen, and have saved hundreds of lives, they have failed to devise any plan of a benevolent character for the relief of their medical brethren, who furnish no exception to the accidents, financial distress and ills referable to the chances of human life. The creation of a Section of Benevolence would help to accomplish this result. In the words of the gifted Atlee, "Our profession should ever seek, along with the advancement of medical lore, to promote every system of benevolence and humanity." It was asserted, with truth, on the occasion of the late meeting of the Sanitary Association at New Orleans, that "the legislatures of the several States of our Union leave no doubt that every child among us inherits the right to an education, the right to proper food, clothing and shelter." Will physicians in this land practically deny these rights to the families of their brethren? Should we not seek to dispense our own charities and to control the funds raised, rather than commit them to corporations which tax the policy-holder, and after all, may fail?

Physicians who will contribute of their abundance, toward a Medical Aid Association, with the generosity which marks the lives of thousands, north, south, east, and west, of other callings and professions, will thereby rear to themselves, in the hearts of a grateful posterity,

"Monumentum aere perennius
Regalique situ pyramidum altius."

CARIES OF THE CUBOID—REMOVAL OF THE DISEASED BONE AND RECOVERY.

BY REUBEN A. VANCE, M.D.,
Professor of Operative and Clinical Surgery in the Medical Department of Wooster University, Cleveland, Ohio.

The following case came under my care in 1873, and was operated upon in 1874. The simple character of the measure adopted for the relief of this patient will serve to show that such cases can be radically cured by other operative procedures than those which require the sacrifice of either the foot or leg.

Miss L. S., aged twenty-one, was injured on the outside of the right foot, in 1871, by the fall of a flat-iron. For several days the foot was swollen and tender, but by the end of a month the part seemed entirely well. Nothing further was noticed until some time in 1872, when, after dancing late one night, a violent pain located itself at the site of the injury. If the patient used her foot in any way, this pain became more intense; rest, with elevation of the part, alone secured a mitigation of her sufferings. The foot slowly enlarged: abscesses formed above and on the outside of the part, and were converted into permanent sinuses. As time passed the acute character of the symptoms disappeared, and the part could be moved without uneasiness; if the patient placed her foot on the floor and bore any weight upon it, a sickening, rather than severe

pain was evoked, which persisted for hours. This pain recurred at night—seemingly provoked by unconscious movements in sleep—and was the chief complaint of the patient. There were two openings upon the top of the foot, and two upon its outer side. By passing a probe into these sinuses it was discovered that they all led to the outer and lower side of the tarsus, in the immediate region of the cuboid. Three out of the four canals could be demonstrated to communicate with carious bone; in the fourth sinus—situated just in front of the outer malleolus—the probe could not be made to reach the bone. At its largest point the right foot measured two and one-fourth inches more in circumference than the corresponding part of the left. An attempt to bear the weight of the body on the right foot excited pain; pressure over the cuboid likewise did so; other movements of the part, which involved no direct compression of the region of the cuboid, were painless. There were no evidences of either pulmonary or cardiac disease in this patient; no hereditary tendency to strumous or rheumatic affections; and as the patient was anxious to get well, I advised an operation for the removal of the diseased bone. To this measure the patient and her friends finally assented, and the operation was performed October 24th, 1874. After the patient was anæsthetized an incision from the base of the fifth metatarsal bone to the anterior border of the outer malleolus was connected with one running from the base of the fifth metatarsal two inches inward and forward. When the flap thus formed was reflected, the sinuses could be traced to their origin in the carious cuboid. At this point the only real difficulty in the operation was encountered; this arose from lack of proper appliances to seize and retract the tendons of the peroneus longus and peroneus brevis. Dr. Needham finally succeeded in holding them out of the way while I onnected the openings in the periosteum and exposed the carious bone; this accomplished, the substance of the cuboid was broken up and extracted piecemeal, its periosteum and ligaments alone remaining. A careful examination of adjacent parts showed the disease to be limited to the cuboid. After the carious bone was removed the tendons of the peronei were returned to their original situation, drainage tubes were inserted and the foot and ankle were fixed in a plaster-of-paris splint. An opening at the most dependent portion of the wound permitted free drainage and enabled the attendants to wash out the latter with a solution of carbolic acid—one to fifty—without disturbing the immovable apparatus in which foot and ankle were embedded. Six weeks elapsed before the plaster splint was removed; at the end of that period the site of the excised cuboid was occupied by a mass of adventitious tissue, and although the wound was not completely cicatrized, yet the cavity was filled and the granulations at the surface were healthy. The foot and ankle were again rendered immovable, but the patient was permitted free exercise on crutches; by the end of a fortnight the wound had healed.

In July, 1880, I saw this patient and made a careful examination of the foot. The right foot measured the same as the left; within an eighth of an inch of absolute equality in every measurement. She says that since her marriage she has done all her own housework, with the exception of a month before and a month after the birth of her child. The latter was born in 1879, nearly three years after marriage. While carrying this child she was annoyed by occasional pains in the tarsus. There was also some irritability of the scar a short time prior to her delivery. At this time her husband wrote me a very full and precise account of her symptoms, and, with the impression that the congestion of the lower extremities incident to the latter stages of pregnancy was the cause of the pains, I advised her to give up her domestic duties and keep the recumbent posture as much as possible. She assured me that so long as she complied with this advice she suffered but little pain; the latter, however, left her permanently with the birth of her child.

The foregoing case illustrates the simple measures that occasionally suffice for the cure of certain forms of caries of the tarsus. In connection with others that have been operated upon by the writer, the clinical features of this patient's history might serve to illustrate certain phases of modern surgical practice in dealing with diseases and injuries of the human foot. Notwithstanding the readiness with which this carious bone was excised, and the speed with which the patient recovered, the friends of the latter were assured, by respectable surgical authority, that any operation short of amputation was mere reckless experimentation; that blood-poisoning would surely supervene if the dead bone were gouged out, and that no surgeon with an established reputation would advise any other measure than amputation.

—In Sweden and Denmark, sheep's milk is generally used: in Switzertand, goat's milk; in Lapland, reindeer's milk; and in Tartary mare's milk.

Hospital Reports.

WESTERN PENNSYLVANIA HOSPITAL.

SERVICE OF W. H. DALY, M.D.

Reported by George W. Hiett, M.D., Resident.

Two Cases of Typhoid Fever—No. 1. Peritonitis, Abscess of Liver, Pneumonia, Death, Post-mortem Examination. No. 2. Abscess of the Neck—Recovery.

Joseph E., admitted November, 1881, aged twenty-four, single, laborer, born in Switzerland; has been in this country but a short time; does not speak English (no family history; no previous sickness or injury); has always been strong and well, until the present illness.

October 30th. 1881, patient was taken sick, suffering from frequent diarrhœa, pain in the abdomen; this being the most prominent in right iliac region; loss of appetite, with considerable pain in the back and shoulders. Preceding this he suffered from minor ailments for a brief period; was able to be about, but quite disqualified for active duty. When admitted was very weak, requiring assistance of nurses to be conveyed to the ward; medium height, well developed, light complexion, skin smooth, no sudamina, or typhoid fever spots, belly not tympanitic, tongue coated, not very dry. Patient would speak when addressed by an interpreter, but seemed more or less reticent and stupefied. Was nervous, with slight twitching of the muscles. Pulse 92. Temperature, taken in the axilla at 7 P.M., 103⅘°.

Ordered the iodine mixture—

℞.		
	Potassii iodid.,	℈ iv
	Iodinii,	gr. x
	Glycerinæ,	f℥ ss
	Aquæ,	f℥ ss. M.

gtt. v in tablespoonful of water every three hours. The diet was restricted to a moderate quantity of beef tea and milk, given at regular intervals.

November 2d, patient rested well during the night; had one stool, which was examined and found to be of liquid consistence, and of a light brown color, tinged with yellow.

During the next five days temperature did not rise above 103°, and the lowest record was 100½°, till morning of the 7th, when it fell to 100°. In the evening the temperature rose 2⅘°, and at 8 P.M. about half a pint of clotted blood was discharged from the bowel, which floated in a thin, bloody fluid, nearly a pint in quantity. Administered gallic and tannic acid, āā, gr. x, and kept the patient absolutely quiet, on his back, in bed. 11 P.M., had another larger hemorrhage from the bowel, probably, two-thirds of a pint of clots. Belly not tympanitic, pulse feeble, not very rapid, and quite distinct. Ordered gtt. xxx, oil of erigeron, in emulsion, the dose to be repeated in two hours.

At 6 A.M., 8th instant, and at 3 P.M., there was a recurrence of the hemorrhage, but at each time very slight. After each attack a small dose of oil of erigeron was given. Morning temperature 97⅘°, pulse 104°, quite feeble. Gave milk punch f℥ j, every hour, till four ounces were taken, the patient getting in this amount f℥ j of whisky.

Prior to setting in of hemorrhage, on the 7th, the stools numbered from one to four in the twenty-four hours. They contained no trace of blood; were in character like the one described above. Temperature arose in the evening to 101⅘°.

November 9th. No recurrence of hemorrhage; circulation improved; temperature 101°; ordered milk punch, given every three hours—f℥ j. Prescribed carbonate of ammonia, gr. iij, and quinine gr. ij, in emulsion, every three hours, the iodine mixture being discontinued the 7th inst. Patient had a cough, which was not a very prominent symptom, and there was no lung trouble present, except a slight bronchitis. Evening temperature 103°, pulse 95.

Nov. 10th.	Temperature	100⅕°	; pulse	88 M.
" "	"	102⅖°	; "	91 E.
" 11th.	"	98½°	; "	78 M.
" "	"	100⅘°	; "	86 E.
" 12th.	"	98°	"	80 M.

At this date bowels were moved for the first time since the 8th inst; stools contained no blood; patient very anæmic, but taking a good quantity of nourishment.

November 13th, 5 A.M. Hemorrhage again occurred; several small clots being discharged from the bowel with the stool; administered a single dose of the oil of erigeron. 9 P.M. a recurrence of the bleeding ensued, and in larger amount than at morning. Ordered gtt. xxx of the oil of erigeron, every hour, until four doses were taken. Instructed nurse to keep patient absolutely quiet, on his back, in bed; pulse not rapid, but regular and small; belly flat; tongue coated, but not dry; features pale, with sweat standing on the forehead; skin and extremities moderately warm. From this time to the 16th, inclusive, patient had one evacuation of the bowel daily, the passages resembling the usual typhoid fever stool, and presented no trace of blood.

Up to the 22d patient's condition had apparently changed for the better. There had been no hemorrhage since the 13th; he had gathered strength; a usual quantity of nourishment had been taken, and was well borne by the stomach. Plenty of sleep aided materially in restoring the vital functions. Just now, however, the diarrhœa became a troublesome symptom, the passages increasing in number from two in the twenty-four hours to five or six during the same interval. No blood was present in any of these evacuations.

November 27th. Diarrhœa continued unabated and at times became much worse; the passages, numbering from eight to twelve in the twenty-four hours, were watery and of a dirty green color. Prescribed chalk mixture with paregoric and tincture of kino.

November 29th. After repeated doses of the above drugs, as well as a resort to other remedies, the stools still continued frequent and copious. Patient gradually growing weaker, and complained of considerable abdominal pain.

December 2d. Pulse small and frequent; marked abdominal tenderness with slight tympanites; vomiting at frequent intervals; diarrhœa still profuse.

Examination of chest anteriorly revealed no abnormal condition, save increase in frequency

of the breathing. Patient too feeble to be raised up or turned from side to side in bed, and an examination of posterior region of chest was not made.

The temperature went up, on the morning of December 1st, from 101⅕° on previous evening to 103⅘, pulse 140, this temperature being one degree higher than at any previous time since admission. The morning temperature of December 2d was 101⅘; the previous evening it had declined to 101⅕, and on the evening of the 2d, it continued to fall, the thermometer registering 99⅘°. Ordered a turpentine stupe applied to the belly and the administration of food per enema for twenty-four hours.

December 3d. Very rapid breathing, small, feeble pulse, extremities cold, features presenting a dusky hue. Patient evidently fast sinking. Morning temperature 103½°, pulse 144. Discontinued all medicines, and endeavored, as far as possible, to relieve the sufferings of patient, until death should supervene. This occurred at 4 P.M.

Post-mortem examination, eighteen hours after death. Body greatly emaciated, skin somewhat discolored, lips cyanosed, abdomen distended, rigor mortis slightly marked, eyes and cheeks deeply sunken. Peritoneal cavity contained pus; intestines distended with gas and bathed in the purulent fluid; their walls intensely congested at various points, thickened and softened, presenting evidence of previously existing inflammation. In the small intestine there was no ulceration of Peyer's glands and no appearance of ulceration in the mucous membrane of the gut throughout its entire extent. Large intestine bound fast at several points by bands of adhesion. No perforations observed. Extensive and deep ulceration of this gut, from the anus to the ilio-cæcal valve, the latter being also involved. Some of these ulcers were transverse, some longitudinal, some round, and all of them deep; in size varying from half an inch to two inches in their greatest dimension. The cæcum and the ascending colon presented most extensive evidence of disease, but the ulcers were very numerous in the rectum and every other portion of the gut. Some had their edges rounded and sloping, denoting a tendency to heal, others presented ragged and deep margins, indicating total failure in the reparative processes. The quantity of fluid in peritoneal cavity not large, probably half a pint. Liver slightly enlarged and adherent to the diaphragm, its convex surface covered with pus. Gall cyst moderately filled with bile. External to it on the concave surface of the liver, and near its anterior edge, was a pus secreting surface about one inch and a half in diameter. This diseased area was deeply cupped and discharged its pus into the peritoneal cavity. A perpendicular section through the organ at this point disclosed the presence of a large abscess area of a more or less rounded form, and measuring three inches in diameter. In appearance it was a grayish, cheesy, friable mass, its border sharply defined from the surrounding normal liver substance. The mass of abscess occupied the anterior portion of the right lobe. Repeated section of the organ failed to reveal other points of suppuration or of deposit. Spleen enlarged and congested, only moderately softened. Kidneys slightly softened, the capsules adherent at certain points. Neither the spleen nor the kidneys contained points of abscess.

Left lung grown fast to the diaphragm and pericardium, with a few bands of adhesions connecting the outer lower portion of the lung with the chest wall. The lower lobe and the posterior inferior portion of the upper lobe were engorged, blue on the surface, heavy, the fissure obliterated by adhesions. Apex and anterior margin of lung intact. No evidence of tubercle. From the cut surface of the engorged portion no blood exuded, but a dirty brown non-aerated fluid could be expressed. A cube of this tissue thrown into water displaced its own bulk of liquid and floated beneath the surface. Early stage of acute lobar pneumonia. Right lung presents similar lesions, but less in extent, only the lower lobe being involved, and the adhesions between its base and diaphragm less firm than upon the left side. The fissures were not obliterated by bands of adhesion.

Pericardium contained above the normal quantity of fluid, and did not present evidence of previous inflammation. Left ventricle firmly contracted. Valves normal, but patulous, the auriculo-ventricular openings being filled with antemortem clots, which were firm and projected into ventricle and auricle.

The patient's death was caused by exhaustion consequent upon the extensive peritonitis, and latterly upon the sudden development of pneumonia. The former disease was set up by sloughing of the capsule of the liver (under surface) into the peritoneal cavity. The pneumonia was very recent, being developed probably during the twenty-four hours prior to death. The rapid breathing was due, in part, at least, to the peritonitis, and the latter, no doubt, stood in a causative relation to the development of pneumonia. The abscess probably bore some relation to the extensive ulceration of the large gut, being due to septic absorption from the ulcers. The adhesions between the pleuræ were old, at least in part. The temperature chart, character of the stools early in the disease, marked tenderness in right iliac region, appearance of the tongue, together with other phenomena mentioned, indicated the presence of a profound constitutional trouble.

The diagnosis of typhoid fever was probably the correct one. Absence of involvement of Peyer's patches militates against this view, but exceptional cases are recorded, in which the lesions of typhoid fever were confined exclusively to the large intestine.

CASE 2.—George L., aged 25, single, born in Germany, laborer, was admitted November 17th, 1881. Had not suffered from previous sickness or injury; temperate, and possessed a strong, rugged constitution; began, 7th inst., to complain of weakness in the knees, diarrhœa, epistaxis, pain in the bowels, loss of appetite, and cough; restless; unable to sleep at night; chills supervened.

Examination disclosed the presence of numerous typhoid fever spots on chest and abdomen; marked iliac tenderness; no tympanites or sudamina; tongue large, dry and coated; sordes collected upon the teeth. Later in the disease

delirium, tympanites and cough were the prominent symptoms. Following these, abscess of the neck, with profuse suppuration, proved a complication of grave import.

December 1st. Observed a swelling, size of a hickory nut, situated over the body of the inferior maxillary bone, which does not fluctuate.

December 5th. The swelling mentioned has disappeared. A lump about as large as a walnut is seen in the side of the neck, to the left of the larynx, and one inch above the sternal extremity of the clavicle. There is severe pain in the region of the tumor, the larynx is pushed toward the right side, the voice is husky. The skin over the point of induration presents no redness or other abnormal character, save slight tension, the heat of the part not appreciably greater than that of other parts of the body's surface. The tumor would move with each pulsation of the carotid, but the sensation imparted to the hand when laid over the entire area was not that of a general upheaving of the mass, as is observed in aneurism. It was decided to wait a few days, and in the meantime apply a flaxseed poultice, medicated with laudanum, in order to diminish the pain of the part.

On December 10th obtained fluctuation in the tumor, which was quite distinct, but evidently deeply situated. Larynx pushed considerably to the right of the median line of the neck, impairment of the voice more decided, patient being able to speak only in a faint whisper. It was thought proper to test the nature of the fluid underlying the integument, and considerable of the structures beneath it, and accordingly a clean hypodermic needle was thrust into the swelling at the point of easiest fluctuation, viz, in the angle of junction of the inferior portions of the sterno-cleido-mastoid muscle. The needle descended to a depth of an inch and drew off a sufficient quantity of fluid to judge of the contents of the sac. The liquid thus obtained had the appearance of laudable pus. An incision through the integument was made, about an inch above the clavicle and external to the position of the carotid artery. A small director was then used to effect an entrance into the sac. This gave vent to the pus, but it was necessary to make a free opening, in order to remove all resistance to the flow. This was done with a curved probe-pointed bistoury. Evacuated about four ounces of pus, which was tinged with blood. Patient experienced immediate relief, both from the pain of the swelling and the pressure upon the larynx. The sinus was kept open by a carbolized tent of oakum. The medicated poultices were continued at intervals of six to eight hours. The cavity continued to discharge healthy pus until January 5th, at which time the pus cavity and its outlet were almost entirely healed. Patient was discharged from the ward Feb. 2d, 1882, cured.

This case was one of the severer forms of typhoid fever received into this hospital, aside from the complication spoken of. The latter is the only instance of the kind noted among the many cases of typhoid fever admitted here.

The deep-seated character of the suppuration, its proximity to the large blood vessels of the neck, and the question of diagnosis, occurring in a person professedly disturbed by the ravages of a severe typhoid fever, are considered points worthy of special notice.

Editorial Department.

Periscope.

Triplets (Prolonged Labor).

In the *British Medical Journal*, Dr. J. Howe records the following case:—

A few days ago I was called to attend Mrs. M., aged 34, in her third confinement. The two children by her former confinements are aged four and eight years respectively. At 10.30 A.M., the nurse who came for me stated the "child's feet and body were in the world for some time," and on going to the patient, I found it so, and delivered in the usual manner. From the long-continued pressure on the umbilical cord, the child was almost asphyxiated, and I adopted Sylvester's method for resuscitation, together with stimulation to the spine, and it gradually revived. On returning to the mother to examine the uterus, I found the head of a second child presenting above the brim of the pelvis, which was also distinctly felt through the parietal wall; but there were no indications of a second labor. I watched her closely all day, waiting the course of events, and toward night, finding the "pains" were not returning, I administered a drachm of the liquid extract of ergot; this did not produce the slightest effect, and there being no immediate symptoms of danger, I decided upon leaving nature to take its course, sustaining her strength with nourishing food and stimulants. At 12 P.M. she complained of aching pain in the back, for which I prescribed a draught containing thirty minims of tincture of opium, after which she had a good night's rest, and was altogether relieved from pain until 1 P.M. next day, when she again complained of the same pain, which now more resembled the commencement of true labor-pains, and continued so till about 4 P.M., when I thought it advisable to administer another drachm of ergot. Soon afterward, the pains increased in severity, until the head of the second child presented close to the outlet of the pelvis. She then had violent bearing-down pains for some time; but the head remaining still in the same position, and the patient getting weak, I applied Simpson's forceps, which are the ones I always use, and delivered the child at 6 P.M.

On again examining the abdomen, I found that, although it was very much diminished in size, there was still sufficient enlargement to lead

me to believe there was another child; and on making a vaginal examination, I found the head of the third presenting. This one was delivered naturally by three or four expulsive pains, and for some time after birth I thought life was extinct; but after adopting the usual methods for artificial respiration, and placing the child in a hot bath, which I think was of the greatest service in this instance, it soon revived.

I kept up the uterine contractions for some time; but finding they were not sufficiently strong to expel the detached placenta, I extracted it in the usual way. There were two distinct placentæ, united by a thin, membranous band; one of these, somewhat the larger of the two, furnished the supply to two of the cords. The first and third child weighed each six pounds, and the second six pounds and a quarter.

Hernia of the Ovary.

At a recent meeting of the Royal Medical and Chirurgical Society (*British Medical Journal*). Dr. Robert Barnes said that scanty advantage had been taken of the opportunity which the ovary, brought to the surface of the body, offers for physiological observation. He cited in abstract some of the most marked cases of hernia of the ovary which have been published, notably those of Goucy, Pott, Desault, Lallemand and Poquet, Deneux, Veboux, Cæsar Hawkins, Oldham Holmes, Coote, Œttingen, Meadows and Lawson, Courty, Leopold, Beigel, Boinet, Rheinstädter and Raffo, and related two cases observed by himself. 1. The patient, a single woman, aged 41, had always enjoyed good health. At 24 she sustained a rupture in the left groin and wore a truss; at 38 she observed a second swelling behind the first. The swelling and tenderness of the ovary were observed before and during the menstrual periods. Corresponding sphygmographic observations showed distinct rise of tension preceding the flow, and subsiding when the flow set in. The ovary was removed. A description and illustration of it were submitted by Dr. Goodhart. Dr. Barnes referred to Dr. Chambers' case in the *Obstetrical Transactions*, in which bodies simulating ovaries turned out to be testicles. He discussed the etiology of hernia of the ovary and uterus, citing Cruveilhier's views. He referred to the frequent complication of anomalies of development of the genital organs in association with hernia of the ovary; also with extra uterine gestation. He enumerated the varieties of hernia of the ovary, and referred to the supposed greater frequency of inguinal hernia when the ovary was concerned; to the greater frequency of congenital hernia; the complications with intestine and epiploon; the dependence of hernia of the uterus upon preëxisting hernia of the ovary, citing Cruveilhier's theory and the confirmatory conclusions of Puech, Deneux, and Cæsar Hawkins. He then discussed physiological points, illustrated by the observation of the herniated ovary; how the ovary swelled concurrently with increased tension of the vascular system before menstruation; how the round ligaments swelled. He discussed the order in which the phenomena of menstruation occurred, arguing that the ovarian nisus was the *primum mobile*, that nervous and vascular tension followed, and lastly, the menstrual flow; resting greatly upon sphygmographic observations. He suggested that the recent practice of oöphorectomy on Battey's principle would supply opportunities for deciding this and other questions; and proposed that sphygmographic observations should be made upon the subjects of this operation. He then discussed the diagnosis and treatment of hernia of the ovary, contending that it furnished a legitimate motive for Battey's operation *quoad* this affection at least. The paper was illustrated by sphygmographic tracings, by drawings of the amputated ovary, and by a cast of the parts.

Dr. Routh said that such cases as those described by Dr. Barnes were important, not only as indicating the symptoms of ovarian hernia, but as contributions to the history of menstruation, which no doubt began in the ovary. He had, however, observed some symptoms to which Dr. Barnes had not referred, in cases in which the ovary had fallen into Douglas' pouch; especially on the left side. In one case, that of a young lady, who had a displacement of the ovary into the left side of Douglas' pouch, where it had become adherent, pressure on the ovary caused sexual excitement. This, if observed in hernia of the organ, would be an additional means of diagnosis. Another symptom observed in these displacements was, that pressure on the ovary produced a feeling of sickness like that arising from pressure on the testicle.

Mr. Hulke said that cases of hernia of the ovary were rather frequently met with by surgeons. Of course, care was necessary in making a diagnosis. In 1871, 38 cases of hernia of the ovary were recorded and classified by Englisch of Vienna (see *Biennial Retrospect* of New Sydenham Society, 1871-72). Of these, in 27 the hernia was inguinal; and in 9 of these the displacement was on both sides. In most of the inguinal cases the hernia was congenital. As regarded the absence of any process of peritoneum in one of Dr. Barnes' cases, this might have existed and have become atrophied. In congenital cases, it appeared that the ovary was almost always accompanied by the Fallopian tubes; while, when the hernia was acquired later in life, the ovary generally came down alone. In many of the recorded cases, a distinct tubular process of peritoneum was described. As regarded operation, each case must be judged on its own merits. He had seen cases where a lightly fitting truss produced no discomfort to the patient, while in others it could not be borne.

Mr. Langton referred to the difficulty of diagnosis. At the Truss Society, among more than 4000 cases of inguinal hernia in women, there were 67 cases of hernia of the ovary. Of these, 42 were congenital, and in 25 the displacement occurred at various ages. The ovary was reducible in 29 of the congenital cases, and in 27 of these the patients were quite relieved by the use of a truss; the other two did not report themselves, and were probably cured. Of the cases in which the hernia occurred later, 8 were reducible and 17 irreducible; the proportion being the reverse of that in congenital hernia. The conditions of the ovary during the menstrual pe-

riods varied. In some, there was swelling of the ovary with effusion of fluid, which became absorbed; but when the hernia had been first observed between the ages of one and twelve, no such excitement of the ovary was developed. The application of a truss gave relief in most cases; in none were there any indications for operation.

Dr. Heywood Smith said that it was very rare to find sexual excitement produced by pressure on the ovary; pressure generally caused pain of a sickening character. Might not the sexual excitement in Dr. Routh's case have been caused by irritation of the pudic nerve, in consequence of the adhesions to the pelvis?

Dr. Barnes thought that the remarks of Mr. Hulke and Mr. Langton tended to confirm the opinion of Cruveilhier, that most cases of hernia of the ovary were congenital, and that the displacement was most frequent on the left side. He had not met with any cases in which distinct sexual excitement was produced by pressure on the ovary. He thought that the greater frequency of displacement in Douglas' pouch on the left side was caused by the round ligament and the ovary being more lax there than on the right.

Extraction of Teeth in Pregnant Women.

At a recent meeting of the St. Louis Medical Society (St. Louis *Medical and Surgical Journal*) this subject was under discussion. Dr. Borck asked, "Is it advisable to allow the extraction of a tooth or of teeth in a woman who is pregnant. I have been several times asked this question by dentists. Some eminent dentists are afraid to extract an aching tooth in a pregnant woman, lest it may cause abortion."

Dr. Green said that it does not necessarily produce abortion. Of course, there may be cases where such an effect would follow, but if the woman is suffering, and cannot be relieved by any other means, he would recommend the extraction of the tooth.

Dr. McPheeters said that there is a form of toothache which is sometimes a symptom of pregnancy. The teeth are sound, and, of course, it would do no good to extract them. He would not hesitate to advise the extraction of a carious tooth.

Dr. Hughes said, "Some patients, when pregnant, are extremely hyperæsthetic; the hyperæsthesia extends to the branches of the fifth pair. Other women, who are more or less nervous when not carrying a child, seem to possess more nerve than than at any other time. I do not know, in view of the varying and variable physiological condition in which we find women in the pregnant state, that we could arrive at any definite rule applicable to all cases. It is simply a question of individual temperaments, of conditions of the patient, and of the existence of centric or eccentric irritation; the existence or non-existence of central or peripheral irritation. And, if a pregnant woman is extremely hyperæsthetic, and you can find a focus of origin for it in the peripheral irritation of a decayed tooth, there would be no impropriety, in the majority of cases, I apprehend, in the removal of that decayed tooth. If in a condition of general nervous excitation, especially if centered in the brain or cord, you have any form of spasmodic display, and you find a possible peripheral source of the irritation, I think the general sentiment of the profession would concur in the propriety of removing that possible source of peripheral irritation."

Dr. Jonaston said, "Some years ago I was called to a lady who had been married six or eight weeks. The second left molar was decayed and an abscess was forming, and protruded from the root of the tooth. The abscess was painful and I advised opening it. She consented and I took my lancet and opened the abscess. This produced a tremendous shock, and in 24 hours she aborted. This case occurring in my early practice has made me very careful about extracting a tooth from a patient during the early part of pregnancy if she were of a nervous temperament; it is a hazardous practice. But if the toothache continues, the reflex irritation of the pneumogastric nerve, connecting with the great sympathetic, may induce uterine contraction, and cause the woman to abort. In such a case we should recommend that the tooth be pulled. There is no rule in the practice of medicine; and no rule as regards drugs, except castor oil. I have given calomel for 20 years, under the supposition that it acted on the liver, and now we are told that it doesn't act upon the liver at all."

Dr. Hurt closed the discussion by saying, "I think we are all obliged to concede the possibility of the extraction of a tooth during pregnancy producing abortion under certain conditions. There is no doubt, also, that there are circumstances under which the extraction of a tooth during pregnancy ought to be advised. The loss of a sound tooth ought not to be allowed unless something is going to be accomplished by it that cannot be accomplished otherwise. But I would have no hesitation about advising the extraction of a tooth from a pregnant woman if it was absolutely necessary to relieve her from a distressing, harassing pain that was wearing her out; and in doing this we may administer an anæsthetic without interfering in the least with the pregnancy. When she is under chloroform or ether we obviate the shock which is usually attendant upon the extraction of teeth. And experience has taught that pregnant women are very tolerant of these agents."

Remarkable Monstrosity.

Dr. Boisliniere recently presented to the St. Louis Obstetrical and Gynæcological Society (St Louis. *Courier of Medicine*) the following remarkable case which occurred in the practice of Dr. C. P. Smiley, of Potosi, Mo. The specimen was given birth by a mulatto woman, who had previously been in good health. When she was six months pregnant she fell across a door sill, which was raised above the floor, and struck upon the abdomen, and from this time the motions of the child, which had been perceptible before, ceased, or at least became very feeble. She was finally delivered, at full term, of this malformed fœtus. The mother was twenty-six years of age. There was no hereditary taint in the family. One leg is wanting from the hip, and there is no abdomi-

nal wall, and the stomach, duodenum, small intestine, mesentery and colon are without the abdomen. The colon is like a second stomach.

Dr. Coles was asked to say something about this case. He said: I have not had time to examine this specimen, and I shall not, therefore, address my remarks exclusively to the case in point, but make a few such as are suggested by it. Some two years ago I had a case in my own practice, in which a portion of the f rearm was missing, and also the occipital bone, and that suggested to me the question as to the causes of intra-uterine amputations and other physical defects in children. It is well known that Montgomery and Simpson hold the view that these intra-uterine amputations are generally due to the presence of bands of adhesions, or to the umbilical cord passing around the limb. Now if you will notice such cases, you will very frequently find that the deformity is multiple in character; that is to say, if a limb is missing, there is apt to be also a bone of the head missing, a defect of the jaw, lip, or some other deformity, as there is with this child; the entire limb here is missing, and the wall of the abdomen is also undeveloped. It is very hard to account for many such defects on the theory of constricting bands. Montgomery reports two cases of children who were born, one with the parietal and several other bones undeveloped, and also a portion of the lower jaw; the other had an ulna and the parietal bone missing. I think the cause of such deformities is more frequently an arrest of development from some centric cause—from a deficiency of autogenetic force, rather than of secondary mechanical origin.

Dr. G. A. Moses then said: In connection with this—although it does not properly belong to this class of cases, still it might come under it in connection with the constricting bands—I will mention a case which I have under observation; the case of a German girl who came here to have an inconvenient and painful congenital stump amputated. On the left leg is what appears to be an amputation of the foot just above the ankle, and about three inches above the stump there is what appears to be a constricting band; the skin appears to be in close coaptation with the bone, just as if a ligature were drawn around the stump. This has become very painful of later years, and she came to have it amputated. She has some defect of every limb on her body, either fingers or toes, besides this defect which I have mentioned. They are all congenital.

Epileptiform Seizures.

Dr. E. C. Spitzka records the following singular case (in the *American Journal of Neurology and Psychiatry*) of epileptiform seizures associated with imperative conceptions. "He was consulted last summer, by a man aged 39, a native of Germany, with reference to certain attacks. They began with sharp and almost painful formications in the finger-tips and feet, then followed a sensation of losing consciousness, against which the patient struggled, and which he overcomes, as he avers, by catching on firmly to some fixed object. Should the attack occur while he is eating, his arms, and particularly his hands, contract violently, so that it is impossible to take the knife or fork from him, while he, conscious all the time, experiences inability to loosen this grip. At times the ordinarily tonic spasm exhibits an illy marked clonic character. His wife states that while he says but little during this attack, which is of hardly more than momentary duration, what he says is rational, and connected with his mental processes, as evinced before and after the attack. He was seen in one of them. His ordinarily mobile and dilated pupils became more dilated while he described the tingling aura. He was made inhale a few drops of nitrite of amyl, to which he reacted readily, and he expressed himself that the fit was broken. With the tingling he had, on this occasion, a sort of sensation as if telegraph wires were strung around his body, accompanied by a "drawing" feeling. At other times an odor was perceived, such as musk, opium, gas, or as of a very cool fresh air. These attacks have increased in frequency of late years. As a young man he experienced a great many of them, but under treatment they disappeared, the patient himself claiming that cannabis indica did more good than any other drug. The patient has been married fourteen years; four years after his marriage he, as he now terms it, "imagined" that he saw his clerk make a signal to his wife, and based a suspicion of marital infidelity on this fact; which, however, he corrected a few weeks later, becoming convinced that he had been the victim of a delusion. Three months later he experienced imperative conceptions, in the shape of the idea that, if he turned his head rapidly, he would encounter a sharp piece of broken glass or a knife. Particularly when a horse in the street car rears its head, he cannot, struggle as he may, divest himself of the idea that its neck will be severed by a large butcher's knife. These ideas seize on his mind suddenly, startle him by their strangeness, and he reasons vainly against their absurdity; originally they were very painful to him; latterly custom has bred a tolerance, and they are less annoying. He was placed on ergot and bromide of sodium, and provided, with nitrite of amyl, against the return of any prodromata of an attack. For five days he was entirely free from any untoward symptoms, after which time he was lost sight of.

Death from Asphyxia in Phthisis.

W. Barrett Roué reports the following instructive case in the London *Lancet*:—

On May 3d, 1881, I was called to see a wretched, neglected looking boy, aged eleven years. The history was that of a cold resulting in some chest affection, for which he had had no medical advice. A constant cough and pain in the chest had been present for five months.

On my first visit I found him sitting up in bed, breathing rather rapidly, but not seeming much distressed, and in the act of expectorating much purulent sputum into a receptacle already nearly full. On physical examination there appeared to be no flattening or falling in of the chest on either side, but the respiration was shallow. There was marked dullness at the right apex, both in front and behind, and large, moist sounds

were heard over the upper portion of the same lung, accompanied by small crepitations. There was increased vocal resonance all over the remainder of the right lung. On the left side there was exaggerated breathing, which I considered to be merely compensatory, with slightly prolonged expiration. Otherwise the lung seemed healthy.

The boy was treated for cough, and an attempt was made to improve his general condition by the administration of cod-liver oil, milk and beef tea. In spite of this treatment, he steadily decreased in weight. The temperature varied from 100° to 104°, usually highest at night time. From this I considered the prognosis to be unfavorable, but did not by any means apprehend a very rapid or a sudden termination to the case.

On May 19th, while sitting up in bed, and without any severe cough, blood mixed with air began to well from his nose and mouth, and in about three or four minutes he was dead, as it appeared, simply from asphyxia, the trachea and bronchi being full of blood, which the boy was unable to expel.

Post-mortem examination.—Body much emaciated. Heart healthy; right side gorged with thick, black blood; left side empty. The right lung was solidified throughout, except a small portion of the extreme apex, and composed of degenerated, cheesy-looking material. There was a large, irregular cavity, about the size of a goose's egg or larger, in the lower part of the upper lobe, extending for a considerable distance into the lobe beneath. This cavity was situated more toward the posterior than the anterior aspect of the chest; indeed, there was scarcely any lung tissue left beneath the pleura in the former situation. The cavity was full of soft, recent blood clot, which passed into the communicating bronchus and upward toward the trachea. On removing the blood clot, an artery about the size of a crow quill was found severed, and the ends hanging down against the walls of the cavity, one on either side. This vessel, previous to its rupture, had evidently passed right across the cavity. The left lung was emphysematous, the air cells and bronchial tubes were full of blood, and a clot passed a considerable distance up the left large bronchus; otherwise the lung was healthy.

Remarks.—Up to the moment of the occurrence of the hemorrhage I think we have a fairly clear case of a condition which, for want of a better name, I will call "pneumonic phthisis." The little patient had probably suffered from an attack of pneumonia in the right lung, the products of which, failing to be absorbed, had broken down, and then gradual disintegration had caused the cavity. The important question is, What was the immediate cause of death? Two causes only, I think, are worthy of consideration, viz., syncope from loss of blood, and asphyxia. There is certainly a third possible cause in shock; but the difficulties of arriving at any reliable conclusions as to this condition in children when the physical signs of organic mischief are so decided as in this case, justify the little notice I have taken of shock as an agent of death. With regard, then, to syncope from loss of blood, the post-mortem evidence is certainly against it. In the first place, the condition of the body strikes us: the face was mottled and of a purple color; in death from syncope it is usually very pale. In the second place, the right side of the heart was gorged with blood; in death from syncope all the cavities are usually empty. Really, the patient lost very little blood, considering the rapidity of his death. Upon consideration, then, asphyxia seems to be the immediate cause of death suggested by the post-mortem examination, for the following reasons—

1st. The right side of the heart was gorged while the left was empty.

2d. The large and smaller bronchi in both lungs, and even the air cells in the sound lung, were filled with blood, so as effectually to cut off all communication between the air and the air cells.

3d. The face bore the mottled and purple hue so well known in cases of death from suffocation.

Impure Chloroform.

At a recent meeting of the Académie de Médecine (February 14th) M. Regnauld presented a communication on the influence of impure chloroform in producing the gastric derangements which frequently accompany or follow surgical anæsthesia. M. Perrin, in 1878, considered that these symptoms were almost exclusively due to the impurity of the anæsthetic agent. As a simple means of testing chloroform, M. Regnauld recommends a solution of permanganate of potash, with the addition of a small quantity of hydrate of potash. A cubic centimeter of this solution is shaken up for about ten minutes, with five times the quantity of the suspected chloroform; if the mixture retains its beautiful purple violet color the chloroform is pure; if, on the contrary, it assumes a greenish tinge the anæsthetic agent is impure and unfit for use. To purify such chloroform, about one per cent. of pure concentrated sulphuric acid should be added to it, then after a few minutes the mixture may be decanted, shaken in a bottle with an excess of magnesia, and finally filtered. Chloroform treated in this manner does not take on a green tinge when shaken with the alkaline solution of permanganate of potash. Twenty samples of chloroform from different druggists were found more or less impure in all cases. M. Regnauld called attention to the destructive influence of solar radiation on chloroform kept in bottles.

In the discussion which followed, M. Gosselin stated that he would hesitate to admit that the impurity of the anæsthetic agent has any effect on the symptoms observed during chloroformization. Assuredly chloroform has caused death in perhaps 1 out of 5200 or 5300 cases in France, and in America in 1 out of 2500 or 3000 cases where chloroform was used to produce anæsthesia. Chloroform often induces cephalalgia, malaise, and protracted vomiting: but in the opinion of M. Gosselin these symptoms are due, not to the chloroform, but to some idiosyncrasy. To avoid these symptoms the chloroform should be administered methodically; the cornet or handkerchief being removed at short intervals, so that it may arrive in the lungs properly diluted.

M. Verneuil is of opinion that the odor of chloroform furnishes a very fair test of its purity. He considers, with M. Gosselin, that certain patients are peculiarly affected by this agent, and perhaps, among other causes, a great susceptibility of the pharynx to the local action of chloroform may induce spasm of the glottis, and the attacks of suffocation sometimes observed.

M. Perrin considers that the symptoms observed during chloroformization are not due to idiosyncrasy or the manner the anæsthetic agent is administered, as MM. Gosselin and Verneuil would have us believe. He is of opinion that chloroform recently made, pure, and which has not been exposed to the light, should alone be used for anæsthetic purposes.

Salicylate of Soda in Variola.

In the *Bulletin de Thérapeutique*, Dr. Baudon publishes the good results he has obtained in three cases of variola, by the use of the salicylic method. The first case was that of a man, 72 years old, who had been vaccinated in early youth. After three days, the face principally, and the whole body, showed signs of such an exuberant eruption as to warrant a most unfavorable prognosis. The case announced itself as one of confluent variola. The patient was in a state of great agitation, and it was a difficult matter to keep him in bed. Wine and brandy were prescribed, and taken without much trouble. So abundant was the eruption that the Doctor feared when suppuration set in the smell would be intolerable, and might prove infectious to the whole system. To guard against this, when that period drew near, the face and a great part of the body were anointed, thrice daily, with the following ointment:—

℞. Cold cream, ℥ iij
Salicylate of soda, ℥ j. M.

Besides this, the whole surface was dusted over with:—

℞. Talc, ℥ iij
Salicylic acid, ℥ iss. M.

The next day Dr. Baudon found the pustules had not increased in size, and the day after they began pitting; no pus was formed, nor was any smell developed. The parts not covered with ointment and powder underwent slight suppuration. Desiccation took place as usual, but the Doctor believed that the course adopted had averted serious impending results, among which the dangers to the attendants from the putrid smell were not the least. Delirium only lasted about three days, and ceased when the vesicles began pitting.

The daughter of the above patient was the next victim; she had been vaccinated but once. She was 23 years old, and her case was one of simple variola, although the eruption over the face was very abundant. Immediate applications of the ointment and powder soon brought about an abortment of the pustules.

The third case was that of a man, 35 years old, of weak constitution, who also had been vaccinated in infancy. The whole surface was covered with pustules. The ointment and powder were applied, and besides a tablespoonful of the following mixture was prescribed, to be taken every two hours:—

℞. Distilled water, f℥ iv
Salicylate of soda, ℥ j
Syrup. f℥ viiss. M.

Much to the Doctor's disappointment, the patient only took one spoonful of this mixture. Nevertheless, he soon recovered. Desiccation was rapid, and no pustules formed on the face.

In conclusion, we may say, that the foregoing method can do no harm, even if it has no other advantage than to do away with the repulsive exhalations, which are a source of danger to those around the patient.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——"Obstetric and Gynecological Literature, 1876–1880." By James R. Chadwick, M.D., Boston, Mass., comes to us as a reprint from the Boston *Medical and Surgical Journal*. In concluding this address, the author says, "To America I have no hesitation in according preëminence in this special field. Our countrymen meet the emergencies incident to child-bearing with a quickness of perception and readiness of action rarely seen in other countries."

——"Croupous Pneumonia; Is it a Zymotic Disease?" By D. W. Prentiss, A.M., M.D., Prof. Materia Medica and Therapeutics, National Medical College, Washington, D. C. An extract from the Transactions of the American Medical Association, 1881. His conclusions are as follows:—

1. Croupous pneumonia is an acute endemic disease, of zymotic origin.

2. The lung lesion is but a local manifestation of the constitutional disturbance, analogous to the ulceration of Peyer's glands in typhoid fever.

3. The specific cause remains undetermined.

4. The time of the year when the cause seems to be most active includes the months of January, February, and March.

5. The disease must run its course. Treatment should therefore be symptomatic and expectant.

——"A Case of Persistent Hyaloid Artery," by William S. Little, M.D., comes to us in the form of a reprint from the Transactions of the American Ophthalmological Society.

——Third annual report of the State Board of Health of Illinois, comes to us with the compliments of the Board. Along with this most complete and exhaustive model report, are blank forms, designed to collect information as to the number of persons vaccinated, and to further this practice, as well as a circular, in both English and German, setting forth the State laws on the subject of vaccination.

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JABORANDI.

As long as the "healing art" has been practiced we have been without a remedy which, when given internally, would induce as rapidly and as strong a diaphoresis as a drastic action of the bowels could be caused by medical means at our command. Certainly we could in many ways establish an increase in the function of the sweat follicles, but our materia medica did not enable us to induce always quickly a powerful action of the skin. In *jaborandi* we do not alone possess such a remedy, but by the hypodermic administration of its active principle, *pilocarpia*, we have the power to bring about, even during unconsciousness, an action of the skin that the best hot-air or steam bath would not be equally able to create. That a remedy so reliable and filling such a void in our materia medica should still be comparatively neglected by many members of our profession, as we know to be the case, we can only explain in this way: that nearly from the beginning of its introduction its use in cases of heart lesions was decried as too dangerous, while its main indication was often found in just such cases (as in uræmia, in cases of morbus Brightii, with dilated hypertrophy), and while its other qualities (absorbing power, diuretic, etc.) were rarely mentioned, so that a distrust was produced against a remedy, the usefulness of which cannot be over-estimated.

We will try to overcome the wrong impression, which has gained too much ground already, by mentioning once more the different preparations of this valuable article and the usual mode of their administration, and by illustrating in a few instances the great merit of this new addition to our not over-burdened resources.

The best and most reliable preparations of jaborandi for the practicing physician are, either the jaborandi leaves in the form of powder, or a good fluid extract, or the active principle, pilocarpia. The first are used either unaltered, as powder, which is perhaps the least effective mode of administration, or in form of an infusion, in both of which cases the single dose ranges from about thirty to sixty grains of the powder. We would prefer to either, however, a good fluid extract, of which adults take half a drachm in a small cup of hot or cold water, every half an hour, until four doses are taken. But far prompter in its action is the active principle, pilocarpia, of which the muriate or nitrate alone are employed, and in our country almost exclusively the first. Pilocarpia is preferred by many, as it can be used hypodermically, and its effect is then even more certain and undoubtedly more rapid, and besides, it is of special value in cases of unconsciousness, when the patient cannot swallow, points which have induced many to employ pilocarpia alone, and never jaborandi. Internally pilocarpia is generally given to adults, in doses of $\frac{1}{12}$ to $\frac{1}{8}$ of a grain, and more, and hypodermically in doses of $\frac{1}{18}$ to $\frac{1}{8}$ of a grain; in children doses have to be proportionally decreased.

If jaborandi is given in form of powder, infusion, or as fluid extract (℥ ss every half an hour), its peculiar effect usually sets in with the third or fourth dose; the internal administration of a sufficient dose of pilocarpia is mostly followed, within a half to one hour, by the expected result;

while the characteristic phenomena of pilocarpia, if given hypodermically, will almost invariably show themselves from within ten to twenty minutes, though it may be safer not to repeat the dose, nor to follow it by a larger one than the first, till at least an hour has passed. The effect of the remedy, in the vast majority of cases, consists in a more or less intense salivation and the most profuse sweating. But this is not all; a freer and decidedly increased flow of urine usually is also observed, and naturally, as the capillary vessels at the periphery are unloaded, to a great extent, of their fluid contents, and of salts the latter carry along, a general stimulation of absorption takes place, and we find not seldom, as one of the results of pilocarpia, a more or less total disappearance of morbid products, the gradual absorption of which we, perhaps for a long time before, had been uselessly trying to bring about by other so-called absorbing remedies. In a few exceptional cases the effects mentioned do not appear, and instead of them, only an excitement of the heart, a more or less violent flow of saliva, and a feeling of great exhaustion are noted. But there is almost no remedy for which some persons have not an idiosyncrasy, and besides, if, under proper precautions, as stimulation and the avoidance of such experiments in cases of grave heart lesions, etc., the dose of pilocarpia is pushed as far as safety may permit, and frequently enough repeated, the results first described will, even in these exceptional cases, mostly be obtained. For the purpose of producing absorption, or a slightly but continuously increased action of the salivary glands, the skin or the kidneys, pilocarpia is often administered for a longer time, also in very small doses regularly three times a day.

If the effect of pilocarpia is watched, and the correct dose given, there is no danger in its administration. Even in cases of affections of the heart this remedy may be employed; if, however, the condition of the organ ceases to be compensating for the lesion, and especially if great dilatation exists, it is safer to make use of stimulation at the same time, and to note carefully the result of the treatment.

The indications for the use of jaborandi or pilocarpia are, therefore, clear. Whenever we wish to produce not only a profuse perspiration, but the latter as rapidly as possible, the hypodermic administration of pilocarpia is to be preferred. Certainly, we do not wish to offend our readers by mentioning the cases in which patients might need a "thorough sweat" within a short time, but we may draw the attention to a few special instances in which pilocarpia acted remarkably well. So, in uræmic coma, it will often, by the increased perspiration, not only relieve the blood of its superabundant urea, but reestablish the urinary secretion, while the same remedy has saved, many a time, the life of children, when in cases of the acute exanthemata the eruption was inducing dangerous brain symptoms, either by being too long delayed, or by the exanthem, having fully appeared already, suddenly "going back." While in some cases of acute articular rheumatism, pilocarpia, if early enough employed, *i. e.*, while the joints are still stiff, but not as yet red and swollen, will often act like magic, and in other cases of the same disease rather do harm; its effect in acute anasarca (that form of dropsy which, occasionally, after a severe exposure to wet and cold, sets in suddenly with fever, and without the kidneys being necessarily implicated), will always be that of a specific; the œdema will disappear in less than an hour. Further, in cases of glaucoma, of pleuritic effusion, of phlegmasia alba dolens, this remedy has frequently stimulated absorption to such a degree that the cases proceeded favorably from the time of the administration of the pilocarpia, and the usual absorbents, which in the same cases before had uselessly been employed, seemed to act with renewed power. And here it is, especially, where in chronic cases the occasional administration of pilocarpia in doses sufficient to produce active perspiration is indicated: when we wish to bring about further absorption, and the action of our absorbents seems to flag; when the case has come to a disagreeable standstill. On account of the diaphoresis, pilocarpia requires great power of the heart for the time being, as a sufficient amount of blood has

to be forced to the surface to permit the congested capillaries to unload so much of the watery portion of the body, and we have to be, therefore, very careful with the use of such a remedy in grave affections of the heart, or when the organ is seriously weakened, and counteract any debilitating influence by the simultaneous employment of stimulants.

Our purpose is fulfilled, if we have encouraged a more frequent use of jaborandi, or of its active principle, muriate of pilocarpia, when active persiration, a freer diruesis, or an increased action of the salivary glands, or increased absorption are wanted, and if we have been able to convince some reader that the remedy is by no means a dangerous one if administered according to its effect. In conclusion, we will only add, that the reported favorable action of pilocarpia in diphtheria has not been sufficiently proven as yet, and that the remedy is utterly useless if employed to start on a bald head a rich growth of hair; while almost every form of alopecia, if caused by illness, seems to be favorably influenced if the individual so affected is put under a course of minute doses of muriate of pilocarpia.

HIGHER MEDICAL EDUCATION.

The results of the changes and advancements in the requirements for graduation in the Medical Department of the University of Pennsylvania have been most gratifying. When they were conceived, many old wiseacres gravely shook their heads and feared that the experiment would be a failure, and that it would be necessary to go back to the old regime. But the young and energetic men who inaugurated this new departure had not acted impulsively and hastily; on the contrary, they had for years carefully and cautiously considered the new arrangements in every detail, and minutely inspected the arguments for and against its ultimate success. Now, after five years only, the results that have been achieved amply testify to the wisdom of their course. For a year or two the attendance upon this old school slightly fell off. Young men who were ambitious to complete their studies in the shortest possible space of time, and with a minimum expenditure of effort, realizing that they could not do so at the University, transferred their studies to schools that offered a more lenient curriculum, and where the chances of securing the coveted degree were much greater. In time, however, and it required but a short time, the better class of students commenced to realize that this extended and graded course, while it required more labor and time, yet in the end would graduate them much more accomplished and competent physicians than were ground out under the old plan. Therefore they turned their student footsteps toward this institution of reformed medical teaching, and its classes once more began to assume their former magnitude.

The requirements for graduation, the various examinations, became more stringent, and the amount of practical work required from the students was very much increased. Now see the result. It was announced at the last commencement that 37 out of 159 candidates were unable to meet the graduation requirements; about twenty-three and one-half per cent. of the aspirants were rejected. This is formidable, and teaches, plainer than any words or announcement can do, that a young man must be very capable when he receives his diploma from the University of Pennsylvania. It was also stated that fifty-one received averages over ninety, with a maximum of one hundred; in other words, that (almost incredible as it may seem to old-time graduates) fifty-one per cent. of the total number of successful candidates received this enormous average.

In our time, under the old system, the averages were not made public, so that we cannot say much about them, but as an index of what they most probably used to be, we can speak authoritatively of the averages gained by forty recent graduates from various colleges when examined for the position of resident physician in the Philadelphia Hospital. Out of this number, *only four, or ten per cent.*, received averages over ninety. So that the evident qualifications of a young man to practice medicine, when he first

emerges from college, have been increased five-fold by this new departure.

The complimentary remarks made about this last class, by old and competent observers, quoted last week (in our report of the commencement) bears additional testimony, if any were needed beyond our statistics, that the Medical Department of the University of Pennsylvania has struck the keynote of true medical education.

When it becomes generally known what high averages, and consequently how thorough has been the education received by the alumni of this school, it will become necessary, as it certainly now is advisable, for all other medical colleges to follow its example.

America, or rather the United States, is a great country. We have great statesmen, equal to the leading political lights of any nation. We are an energetic, go-ahead people, destined, beyond doubt, to become, in the not very distant future, the *Rome* of modern times. As Oliver Wendell Holmes so beautifully expresses it, "the treasures of the British Museum and the Vatican" will find new homes in our hospitable and progressive land. And as a recent distinguished and lamented Frenchman once said to his confrères in the legislative halls of his country, "The pristine greatness of France has departed, never to return in its former glory. The French tongue is no longer the predominant language of the world; English has superseded it, and, unless I am very far wrong, it will not be many years before this language is principally taught from the banks of the *Hudson*." Realizing how great we are, and what a glorious future we have before us, in all the solid and material elements of national progress, as well as in the arts and sciences, it becomes eminently proper, and the time has come, when we should use every endeavor to raise the education of our young prospective doctors from that low level always found in what we might call *provincial* nations, and place it upon the level of the older and more advanced European countries.

All hail to the men who have inaugurated this new departure. When the time comes, as it surely will, and very soon, that the inhabitants of our southern and western neighboring nations; when the South Americans, New Zealanders, Chinese, Japanese, as well as the young doctors from Europe, will flock to the United States, as we now journey to Paris, Vienna, and Berlin, to finish the medical education but partially completed at home; then will the names of these pioneers in the region of unexplored "Higher Medical Education" be written and talked about, as now are the great medical savants of continental Europe. Their names will be as immortal as are those of Harvey, Hunter, or Vesalius. They will be looked upon as men whose efforts, when this country was yet young, were directed, with all the fire and force of their energetic natures, toward placing medical education on a true scientific basis. Keep on, gentlemen, turn not to the right nor to the left; go straight ahead in your grand and laudable path, and you will ultimately receive, as you now deserve, the hearty support and coöperation of every *sensible* man.

Notes and Comments.

Paralysis Treated by Extension.

Dr. C. R. Illingworth reports the following case in the *British Medical Journal*. A case of paralysis of five months' standing was brought to me. The patient was a young lad, aged 15, and the disease at first came upon him gradually, he being able to walk, although with difficulty for some weeks. There then occurred sudden and total loss of motion in the lower part of the body, and he was unable to either sit or stand up.

He had been systematically galvanized for three months, without any appreciable effect. Reflex motor power was impaired, but good. A peculiar forward protrusion of the chin, together with the above mentioned symptoms, led to a diagnosis of curvature in the cervical region, leading to paralysis of motion from pressure upon the anterior columns of the spinal cord, and it was decided to adopt gradual extension. The patient was laid upon a bed, the head of which was very much raised. The body, from the shoulders downward, was fixed to an upright pillar at the foot of the bed, by means of ropes attached to each side of a tightly fitting waistcoat, and extension of the head was then made, by means of a halter with chin-strap, pulling in

a direction running through the crown of the head. The extending power consisted of an elastic ring and metal chain, fixed to the halter. By putting the elastic on the stretch, and fixing the chain to an upright pillar at the head of the bed, continual gradual extension was secured, the chain being tightened a link or two as the elastic slackened. This apparatus was used during the day only, for two months, with very good results. In one month the patient began to move his toes, and every day afterwards the motor power returned to his lower limbs, and he became able to get up. A pulley was then fixed to the ceiling, and he was instructed to pull himself up by the rope, several times daily. In a few weeks he was able to walk with assistance, and four months after the commencement of treatment he could walk steadily and well, without help.

The Value of Pure Codeine.

In an article published in the *Journal de Thérapeutique*, Dr. Leblanc, says: The reason why authorities differ as to the merits of codeine, is probably due to the fact that it is frequently adulterated by admixture of *chlorhydrate of morphia*. Out of 100 samples of so called codeine syrup, recently examined, 23 were found not to contain a particle of this substance. As far as my observations go, I have found codeine to be a reliable soporific, valuable because of its mildness and the facility with which its effects are dispelled without leaving any unpleasant results. These effects are especially notable in cases of acute and subacute bronchitis, so much so, that I am inclined to believe this alkaloid possesses an elective sedative action on the mucous membranes of the bronchi and larynx. Under its influence the tickling sensations in the larynx, which induce coughing, are speedily calmed, and the patient falls into a quiet and refreshing sleep. Another advantage in favor of codeine is, that it is well tolerated by those persons who, owing to nervous temperaments, or from some unknown idiosyncrasy, are unable to take morphine.

There are a great many patients who, as it were, react against the effects of opium or morphia, either by experiencing nausea, or from a natural tendency to struggle against the hypnotic effects of morphia, as soon as they begin to be felt.

In such cases, *pure codeine* gives most excellent results; its effects are progressively soothing and culminate in a quiet sleep, unattended by either giddiness or those strange sensations, amounting often to delirium, which frequently accompany morphia.

From the foregoing observations, it would seem that codeine is a valuable remedy as a sedative in insomnia, colds, bronchitis, asthma, and whooping cough, provided it is perfectly pure.

Tonsillotomy by Ignipuncture.

The *British Medical Journal*, after commenting on the dangers of removing hypertrophied tonsils by all of the old methods, says: "It is now alleged that with the thermo-cautery this serious accident (hemorrhage) is no longer to be dreaded. M. Krishaber, who has tried it during two years, and has collected more than forty cases (*Annales des Maladies de l'Oreille et du Larynx*) has never had any accident after this treatment, and the results obtained have been lasting. It is likewise a novel application of a method which he has found perfectly successful for granulations of the larynx and pharynx. He proceeds as follows: The patient is placed—firmly, if a child—as if for laryngoscopic examination, in front of the operator, the mouth open, the tongue held back by a large spatula, the bottom of the throat well illuminated. M. Krishaber generally uses Paquelin's narrow-pointed thermo-cautery, heated to red heat. When it is only required to modify the nutrition of the gland, he gives preference to Trouvé's polyscopic galvano-cautery. The puncture of the gland, made as deeply as possible with the point of the instrument, should be repeated five or six times at each sitting. An interval of two or three days is left between the sittings, so as to allow the fall of the eschar, and to estimate the result. The operation is not at all painful, and pain, from burning, is rarely felt. Nothing need be administered after the operation, except, in some cases, a gargle of warm water, slightly carbolized.

Medical Treatment of Uterine Fibroids.

The medical treatment of fibrous tumors of the uterus is not absolutely fixed; subcutaneous injections of ergotine as a continuous treatment would be difficult to carry out, and electricity, which in the hands of M. Chéron has given good results, cannot be conveniently employed in private practice.

M. Chéron in the *Revue Méd-Chirurg. des Maladies des Femmes*, remarks that in many cases we will be obliged to have recourse to remedies which calm the pain and uneasiness felt in the abdomen, and to others having a resolvent action on the tissues of new formation.

For the first purpose he has found an ointment containing belladonna of great service, acting as a sedative and at the same time reducing the peripheric engorgement and causing a diminution in the volume of the tumor. His ointment is composed as follows:—

℞. Ext. digitalis, ʒj
Ext. belladonnæ, ʒss
Ung. simplicis, ʒxss. M.

A portion of this ointment as large as a nut should be rubbed in over the abdomen night and morning.

The following solution has a decided resolvent action on tissues of new formation, and at the same time, as shown by Liegeois, a reconstituent action on the entire system:—

℞. Hydrarg. bichlorid., gr. ss
Aquæ destil., ʒviij. M.

A tablespoonful of this solution should be taken before each meal.

Resorcine and its Employment in Therapeutics.

MM. Dujardin-Beaumetz and Callias have made an extended study of this substance and its use, in the *Bull. Gén. de Thérapeutique.*

This substance was discovered by two Viennese chemists, Hlassiwetz and Barth, in 1860, among the products of fusion obtained by treating galbanum with potash; later on it was obtained from gum ammoniac and assafœtida.

Resorcine is very soluble in water, has a feeble odor, somewhat resembling that of carbolic and benzoic acid, and has the same properties as carbolic acid; a one per cent. solution acting as an anti-ferment, and a one and one-half per cent. solution as an antiputrid.

The authors are of opinion that this antiseptic, on account of its extreme solubility, its very feeble odor, its toxic effects being slight as compared with carbolic acid, it being also much less caustic, should be preferred to this latter in surgical practice.

Paget's Disease of the Nipple.

By Paget's Disease of the Nipple is understood a peculiar eczema-like affection of the nipple, which, though closely resembling eczema, differs from it in its well defined margin, in its intractability, and in that it invariably leads to cancer of the ducts, in middle-aged persons, if allowed to continue for some months. The relations of this disease were first pointed out by Paget, and hence the name. Munro relates several cases of the disease. In one of them, notwithstanding the nipple was removed before any symptoms of cancerous disease had appeared, the affection returned in the cicatrix, and was subsequently followed by cancer in the gland.

Ergot in Lead Palsy.

We read, in the *Lyon Médical*, that Dr. Stites recommends the following mixture in cases of hemiplegia and paralysis having their origin in chronic lead poisoning:—

℞. Potass. iodid., ʒij
Ext. ergotæ fl., ʒj
Ext. nucis vomic. fl., gtt j
Tr. opii camph., ʒj
Syr. simplic., ʒiv. M.

A tablespoonful of this mixture may be taken night and morning.

A very great amelioration, if not complete cure, is obtained in about one month. The efficacy of ergot is explained by its well known action on the non-striated muscle fibres, and its long continued use does not seem to produce the results attributed to it (gangrene, etc.)

Cracked Nipples.

Le Paris Médical publishes a number of formulæ, which are recommended in this complaint:—

No. 1. ℞. Cosmoline, ʒxiiss
Liquid balsam Peru, ʒi½. M.

No. 2. ℞. Oxide of zinc, ʒi½
Cold cream or cosmoline, ʒx. M.

No. 3. ℞. Glycerole of starch, ʒviiss.
Oil of cade, ♏xlv. M.

No. 4. ℞. Cacao butter, ʒiiss
Oil sweet almonds, ʒss
Extract of rhatany, ♏xv. M.

No. 5. ℞. Gutta percha, ʒj
Pure chloroform q. s. to dissolve.

By anointing the excoriations with this a slight film is formed, which will not become detached, even after sucking.

Knife Swallowed by an Infant.

The St. Louis *Courier of Medicine* reports the case of a boy, aged two years and five months, who, while playing with a two-bladed silver fruit knife, two and seven-eighths inches long, nine sixteenths of an inch wide, and one quarter of an inch thick, accidentally swallowed it, on December 27th, at 11.30 A.M. At the moment of its passing downward he became very red in the face, but beyond this experienced no discomfort whatever. On December 29th, at 9 A.M., forty-five hours and thirty minutes after it was swallowed, the knife was passed from the bowels, in a mass of consistent fecal matter.

Hoang-nan and Hydrophobia.

Paris Médicale reports that, at a sitting of the Société Médicale des Hôpitaux, January 27th, 1882, M. Gingeot read an account of a case of hydrophobia in man, treated with Hoang-nan, a medicinal substance used in the extreme Eastern countries as a remedy for a number of incurable diseases. Four pills were given, each containing grs. iss of the drug; but they were thrown up. M. Gingeot then had recourse to subcutaneous injections, dissolving the pills, and giving the value of two in each injection. The patient died, but he did not think this failure should condemn the process. In the first place, it should have been tried at an earlier stage of the disease, and then again, he believed that the right preparation to use as an injecting solution was the hydro-alcoholic, or an aceto-alcoholic extract of hoang-nan. M. Dujardin Beaumetz recalled the fact that during last year twenty-three deaths from rabies had been recorded in Paris. Different modes of treatment were used; but he gave his preference to the Russian method, which consists in the use of garlic, or sulphide of allyl, and thus far his patients had met with no accidents. He had made experiments with valdivin on mad dogs. This substance does not cure rabies, but it prevents the paroxysms. M. Sevestre observed that he had used pilocarpin, but without success.

Diphtheria.

Dr. Lolli, of Trieste, uses exclusively the following mixture in the treatment of diphtheria, and in sixty cases the mortality was less than two per cent., the malady having a duration of but eight or ten days, and being but rarely propagated to the mucous membrane of the respiratory organs:—

℞.	Ferri sesquichlorid.,	gr. xv–gr. xlv	
	Ac. carbolic pur.,	gr. xv–gr. xlv	
	Mel. rosæ,	ʒ j	
	Aquæ calcis,	ʒ xv.	M.

The throat is swabbed with this mixture every half hour, adults using it as a gargle, and it is, besides, to be taken in tablespoon doses, diluted every second hour. Of course tonics and very nourishing food form most important adjuncts to the treatment.

Arterial Elasticity.

The *Progrés Médical* reports that at a meeting of the Société de Biologie, on Feb. 11th, 1882, Mr. Arloing stated that he had measured the force of arterial elasticity, by counting the number of seconds during which this elasticity can, of itself, keep up the circulation of the blood. Having stopped the action of the heart by galvanizing the pneumogastric nerve, he observed that the blood continued its course during nine or ten seconds more; this he considers is an evidence that each arterial systole does more than simply to transmit the impulse it has just received.

Special Reports.

NO. IV.—ADULTERATIONS—(Continued).

SUGAR.

During the past year the attention of the Board of Health of New York city was called to the manufacture of a new kind of sugar by a secret process. It is made by mixing very carefully refined grape sugar with various grades of ordinary cane sugar. As the grape sugar is perfectly white, it, of course, gives a finer appearance to the dark sugars with which it is mixed, and as it costs only four or five cents a pound, considerable profit can be made. But the grape sugar used is made out of corn, sulphuric acid being used in the process. The new process sugar is not as sweet as cane sugar, but will be harmless, unless sulphuric acid or gypsum become mixed with it in its manufacture. This is a danger that may occur, and that renders the use of this sugar unadvisable. In connection with sugar we note that yellow candy is generally given its color by the use of the salts of lead, as much as seven grains of chromate of lead having been found in one pound of candy. The red is usually colored with cochineal, and is comparatively harmless.

COFFEE.

The Cincinnati *Medical News* says, "Ground coffee affords a field for adulteration, and for this purpose chicory, carrots, caramel and date seeds are the substances most commonly used. The beans have of late years been skillfully imitated, but as coffee is mostly purchased in the ground condition, the chief point for the consumer is to be able to form some idea as to the character of the latter article, and the following are a few simple and reliable tests: Take a little of the coffee and press it between the fingers, or give it a little squeeze in the paper in which it is bought; if genuine, it will *not* form a coherent mass, as coffee grains are hard and do not readily adhere to each other; but if the grains stick to each other and form a sort of '*cake*,' we may be pretty sure of adulteration in the shape of chicory, for the grains of chicory are softer and more open, and adhere without difficulty when squeezed. Again, if we place a few grains

in a saucer and moisten them with a little cold water, chicory will very quickly become soft, like bread crumbs, while coffee will take a long time to soften. A third test: take a wineglass or tumbler full of water, and gently drop a pinch of the ground coffee on the surface of the water, without stirring or agitating; genuine coffee will float for some time, while chicory or any other soft root will sink; and chicory or caramel will cause a yellowish or brownish color to diffuse rapidly through the water, while pure coffee will give no sensible tint under such circumstances for a considerable length of time. 'Coffee mixtures' or 'Coffee improvers,' should be avoided. They seldom consist of anything but chicory and caramel.

"French coffee, so widely used at present, is generally ground coffee, the beans of which have been roasted with a certain amount of sugar, which, coating over the bean, has retained more of the original aroma than in ordinary coffee, but this, of course, at the expense of the reduced percentage of coffee, due to the presence of the caramel."

New Remedies suggests another test for adulterated coffee. "It may not be generally known," it says, "that chicory, dandelion, and probably some other substances that are used for mixing with coffee, are readily deprived of color by a weak solution of chloride of lime (hypochlorite), and that this agent has very little action on the coffee. When this method is adopted, a portion of the coffee should be gently boiled a short time, in water with a little carbonate of soda, so as to remove extractive as much as possible; after subsidence, the liquor should be poured off and the residue washed with distilled water. When this has been sufficiently done, a weak solution of the hypochlorite of lime is to be added, and allowed to remain, with occasional stirring, until decoloration has taken place, which will probably be in two or three hours. The coffee will then form a dark stratum at the bottom of the glass, and the chicory a light and almost white stratum floating above it, and showing a clear and sharp line of separation." "The chicory, after this operation, is in the very best condition for microscopical examination, and it is not difficult to discriminate between chicory, dandelion or other substances. Although the lower stratum may be dark, and have all the appearance of coffee, other substances may be present, and should be sought for." Still another test has been offered by Mr. ALBERT SMITH, in the *Pharmaceutical Journal*. "I have found the following method work very satisfactorily: First, carefully examine the coffee under the microscope; then take 150 grains of the coffee and boil it in two pints of water, then strain, and add diacetate of lead until a precipitate ceases to be formed; stir well and put aside to settle; if the coffee be pure, the water above the precipitate will be perfectly clear, but if chicory is present, the water will be more or less colored, according to the quantity present, which can be estimated by comparing the depth of color, the same as the Nessler test for ammonia." It has been stated that damaged raisins are roasted to make the French coffee.

It will be well for any one desiring pure coffee to resort to all these tests.

TEA.

C. M. VORCE, F.R.M.S., says, "In examining a sample of tea for adulteration, the first process is to sift it, or to otherwise separate the fine dust from the leaves. Having done this, put a quantity of the leaves to soak in warm water. On examining the dry dust with the microscope, if the tea is good, we shall find it to be almost entirely composed of fine fragments of the leaves, detached hairs, a few particles of Prussian blue, and such particles of sand, fibres, etc., as are always present in any substance that has been more or less exposed to dust. The poorer the sample of tea is, the greater will be the quantity of siftings, and the more dirt, dust, fibres and coloring matter are found; there usually is what appears to be simply dried and powdered blue clay. It is insoluble in water and apparently unaffected by acids." From this he infers that the cheap tea that shows this fine granular substance is sprinkled, while damp, with dry, powdered clay, which adheres to it as it dries, thus increasing its weight. It is also possible that the steeped leaves, which have served to furnish the extract of tea used to flavor other leaves, are thus treated with clay, so as to be sold again as tea at a low price. In the poorest sample of tea that he could find, such as retailed for twenty-five cents a pound, were discovered a large amount of stems of some bush, also pieces of the stalk of some grass, very like the common timothy grass, somewhat colored, and undoubtedly flavored by soaking in extract of tea. It contained many other impurities. Yet it had a good fragrance and taste, and when some of it was steeped and placed on the table, it was pronounced by those who tasted it (and who knew not of the adulterations) "*pretty good tea.*" Taking, now, the leaves which were put to soak, and which have unfolded and become soft, we proceed to minutely examine the structure of the leaves, so as to

know whether any leaves we may find in a sample purporting to be tea are tea leaves or not. The upper surface of the tea leaf is smooth, without hairs or stomata, and in its soft and swelled condition, when examined in water and glycerine with one-inch objective, shows the surface to be composed of angular cells, loosely arranged, some oval or circular, with considerable space between, with a tendency to fall into rows corresponding with the network of spiral vessels. An occasional clear space (an empty cell) looks like a hole extending into the leaf. The network of spiral vessels is very close and tortuous. The under surface bears many long, slender, simple, pointed hairs, without divisions. The cells are packed and the stomata very numerous; there are no open spaces to be seen. A section of the leaf shows that the cells on the upper side are attached by the end for two layers in depth; then come the T-shaped cells throughout the substance of the leaf, with one layer of cells lying flat on the under surface and gradually merging into the heterogeneous arrangement of the middle part. The cells of parenchyma forming the substance of the leaves are of various irregular shapes, but usually about twice as long as their width; many are triangular or T-shaped, and they are never circular or oval. The leaves of the very cheap tea were found to consist mostly of leaves having the shape of tea leaves, but somewhat smaller, and of a yellowish tinge. The cells were of very similar shape and arrangement to those of tea, but considerably smaller. The hairs were also of the same shape and size, but they were hollow quite to the tips, and so numerous, that in some places the leaf seemed entirely covered with them. The stomata were of the same size and shape as those of the tea leaf; and on the whole it seemed probable that these leaves were actually the leaves of some species of tea." Adulteration can be readily detected by any one who familiarizes himself with the structure of genuine tea leaves.

CORRESPONDENCE.

A Case of Traumatic Tetanus—Recovery.

ED. MED. AND SURG. REPORTER:—

On October 11th, 1881, J. G., a lad of eleven years, sustained a crush of the arm and forearm, by the flange of a moving car-wheel. The integument was split and loosened, and both it and the superficial layer of muscles devitalized. The arteries were intact, and no bones broken. The limb was poulticed and anodynes given as needed. Quinia and iron were ordered in tonic doses. The integument and portions of the superficial muscles sloughed around the entire circumference of the limb, from a point three inches above the elbow to near the wrist. The case progressed favorably till the thirteenth day, when stiffness of the jaw and general uneasiness began to appear. The weather at this time was damp and cool. Ten grains potassium bromide and three grains chloral were ordered every two hours. On the second day of the attack the jaw could be opened only one fourth of an inch. On the third day the muscles of the back were so contracted as to draw the head back into the pillow, and any effort to change the boy's position caused the greatest pain. Breathing had become very difficult, from the tonic contraction of the chest-muscles. Urination also was difficult and painful. He complained of pain extending from the pit of the stomach to the back. Risus sardonicus was marked. Noises within or without the house gave rise to general spasm of the muscular system, accompanied by intense pain. The granulations of the wound became sluggish.

The patient's mind was clear and pulse normal. He was fed upon beef essence and milk, and one-eighth grain morphia was ordered at night. On the fifth day there was no material change in the lad's condition. A liniment of equal parts tincture aconite root, laudanum, ammonia water and olive oil, was ordered to be applied to the back of the neck and trunk, to diminish the cutaneous sensibility.

The treatment was continued, and on the eleventh day the symptoms began to ameliorate. The muscles of the jaw relaxed so that it could be opened half an inch. Contraction of the abdominal and dorsal muscles became less marked and the spasms occurred less frequently. From this period the boy steadily improved, but complained of stiffness and cramps in his legs, till the end of the fourth week.

Whether the bromide and chloral exerted any curative influence is a matter of doubt; still, recovery under their use, after an attack so severe, is worthy of record. JAMES G. BUCHANAN, M.D.
Allegheny City, Pa.

Anacardium Poisoning.

ED. MED. AND SURG. REPORTER:—

Having noticed in a medical journal a case of poisoning by anacardium occidentale, reported by Prof. F. Le Sieure Weir, and such cases being not well known to a large majority of practitioners, an account of a case that came under my notice may be of some benefit to many of your readers.

Mr. G. Z., aged 41, house sergeant at one of our Philadelphia police stations, had given him several cashew-nuts (anacardium occidentale) by a sailor, who brought them from Brazil, and was told that the kernel was edible and very sweet, but that the juice between the inner and outer shell was bitter. Mr. Z. did not profit by this warning, however, and commenced biting through the nuts, getting the juice on his lips and fingers. By the next morning his hands and face were largely œdematous and covered with erythematous patches, which in another day had developed into vesicles. The neck, body, scro-

tum and penis, which were greatly swollen, legs and feet, were attacked alternately, the treatment seeming to have the effect, as he said, of driving the disease out at the toes. Mr. Z. was confined to his bed during the second and third days, complaining of drowsiness and headache, and having a heavily coated tongue and high fever. The acute symptoms were over in eight days; desquamation continued for more than a week after.

The treatment, which was discontinued on the eighth day, consisted of a solution of sulphite of soda (℥ iij to Oj of water) applied to the affected parts every few hours, together with the following internal treatment:—

℞.	Sulphate of magnesia,	℥j
	Tartar emetic,	gr. $\frac{1}{16}$
	Sulph. of morphia,	gr. $\frac{1}{64}$
	Water,	℥ ss. M.

given every two hours during the day.

H. B. NIGHTINGALE, M.D.

Philadelphia, Pa., Feb. 1882.

NEWS AND MISCELLANY.

Insanity.

From the report of Dr. Kirkbride, physician-in-chief of the Pennsylvania Hospital for the Insane, we note the following:—

Of the great number of patients lodged within the walls of the Pennsylvania Hospital for the Insane last year fifty-seven were cured, eleven much improved, forty four improved and twenty-six died. The records of this institution show that since 1841, of the 8480 patients received at the asylum 1577 were rendered insane through ill health; 828 from intemperance; 287, loss of property; 396, grief; 243, religious excitement; 87, overwork; 510, mental anxiety, and 13 from uncontrolled passion. In addition to these, fright caused mental aberration in 53 cases; metaphysical speculation, 1; engagement in a duel, 1; homesickness, 9; stock speculation, 2; mortified pride, 8; use of opium, 33; use of tobacco, 17; tight lacing, 1; sudden acquisition of wealth, 1. The ages of a majority of the patients when insanity first appeared was between twenty and thirty-five.

The improvements to the hospital during the year have been notable. The work of finishing up "The Mary Shields Ward" is now being prosecuted, and it will soon be in readiness. Thus far it has cost $25,866.52. The expenditures of the male department during the year were $79,214.14, and the receipts $81,692.25. The expenditures of the female department were $88,676.13, and the receipts $84,964.17.

The Clock Said His Time had Come.

About midnight, the other evening, the door bell of one of our physicians rang violently, and the doctor, putting his mouth to the speaking-tube, asked what was wanted. "I must see you right away," replied a voice. "But I am sick, and not able to attend to business," said the doctor. "No matter," said the voice. "I must see you, any way." The physician arose—it was bitter cold, and he was quite ill—donned his clothes, and proceeding to the front door, let in, along with a strong blast of zero air, a man and a woman. Neither looked very much out of health, but the man's eyes rolled rather wildly, and he appeared somewhat disturbed. "Well," said the physician, "what is the trouble?" "The trouble!" replied the man. "Trouble enough! You see, Doctor, we own an old-fashioned clock, that has stood on our mantel-piece for years. It has not been touched in all that time. Its works are dusty, and its case defaced by time. Would you believe it, Doctor? to-night, after we had retired—that is, wife and I—all at once that old clock started up and struck the hour of twelve. Of course, Doctor, that meant my time had come, or a warning that I must soon die. What shall I do, Doctor?" And the man moaned and rocked to and fro, while the wife wept to see her husband so affected. The physician said he did not see how any prescriptions he could give would put off the fatal hour. But the man insisted, and finally the doctor gave him a prescription for bromide of potassium, with which man and wife departed, somewhat consoled.

American Butter in Ireland.

It is noted by the *Grocer* (*Medical Press and Circular*), that there has never been such a scarcity of butter in Ireland as there is at present, and what they have is almost uneatable. It is made up in "lumps," by the small cottagers, who have only one cow, and, therefore, have to keep the cream until it is semi-putrid, to churn it in a filthy cabin, full of turf smoke, and fetch it to market some days afterwards. This scarcity is being supplied by importation of American and Danish butter and butterine.

Guilds of Health.

Sir Henry Cole suggests, in the *Medical Times and Gazette*, that for the protection of health and prevention of fevers of all kinds, a guild of health, voluntary, self-supporting, and self managing, should be established throughout the kingdom, in every parish district at least, and that there should be a central station or office established in it, connected with some suitable shop, such as an ironmonger's turnery, etc., on the principle of post-offices. This suggestion might be acted upon in our own country with great benefit to our citizens.

Surgery Aids Music.

Dr. William A. Forbes recently performed the following unique operation: The connecting tendons from that of the third to those of the second and little fingers were divided subcutaneously in the hand of a pianist, by which he was afforded unusual freedom of movement of this finger, and was much aided thereby in his performances on the piano.

Prizes.

The International Committee of the Red Cross or Sick and Wounded Soldiers have offered prizes

of $400 for the best and $100 for the next best essays on the best means of improvising aids for wounded and sick. They are to be sent in before 1st of April, 1883. Further information may be obtained from the Secretary, *Rue de l'Athénée*, 8, *Geneva*. These prizes are open to competition by physicians in any country.

Sir Robert Christison's Successors.

Dr. Balfour, Emeritus Professor of Botany in the University of Edinburgh, will be proposed as successor to Sir Robert Christison, in the office of Assessor of the General Council in the University Court; and Dr. R. Peel Ritchie, F.R.C.P.E., will succeed him as consulting physician to the Royal Edinburgh Hospital for Sick Children.

Items.

—A Woman's Medical College has just been started in Baltimore. All the Professors are males.

—Gray's Anatomy has been translated into the Chinese language, and published in six volumes, at Foochow.

—A death from chloroform is reported as having recently occurred at Munich, in the case of a woman on whom a dental operation was being performed.

—Professor Panum, of Copenhagen, has been chosen to preside over the next International Medical Congress, and Dr. Carl Lange has been appointed general Secretary.

—"How are you and your wife coming on?" asked a Galveston man of a colored man. "She's run me off, boss." "What's the matter?" "I is to blame boss. I gave her a splendid white silk dress, and den she got so proud, she had no use for me. She 'lowed I was too dark to match de dress."

—Carlyle once rode sixty miles, to Edinburgh, to consult a doctor; "having," as he said, "reduced my perplexities to a single question: Is this disease curable by medicine? or is it chronic, incurable, except by regimen, if even so? This question I earnestly put, and got the response, 'It is all tobacco, sir; give up tobacco.' Gave it instantly and strictly up. Found, after long months, that I might as well have ridden sixty miles in the opposite direction, and poured my sorrows into the long, hairy ear of the first jackass I came upon, as into this medical man's, whose name I will not mention."

OBITUARY NOTICES.

DR. DAVID KING.

Dr. David King, an eminent physician of Rhode Island, died at his home in Newport, on the 7th of March. He belonged to one of the distinguished colonial families of New England, and was fifth in descent from Ensign Philip King, who resided in Raynham, Mass., in 1680. He was born in Newport, R. I., the 12th of May, 1812, and in his earlier school days attended the Academy at Kingston, R. I., and then Brown University, whence he was graduated with honor in the class of '31. He then began the study of medicine with his father, Dr. David King, Sr., but completed his course in 1834, in the Jefferson Medical College, Philadelphia. He then engaged in successful practice in his native city, and eventually became one of its wealthiest citizens. In 1850 he went abroad to visit, for professional information, the hospitals of Dublin, London and Paris. Returning the following year, he resumed practice, but in 1872 he again visited Europe, and spent two years in inspecting all the principal hospitals of the Continent. He contributed many professional papers to the Medical Society of his State, on several occasions receiving the principal prizes for competitive papers on special subjects.

He was successively Vice-President, President and Censor of the Rhode Island State Medical Society, and member of and delegate to the American Medical Association. Dr. King wrote and published several valuable papers on historical subjects. His literary and historical tastes led him to collect a rare and valuable library of many thousand volumes, much of the same character as the remarkable library of the late Mr. Brinley. During the war of the rebellion one of Dr. King's sons, serving with the Rhode Island contingent, was mortally wounded in the first battle of Bull Run. Dr. King was Assistant Treasurer and a member of the standing committee of the Rhode Island State Society of the Cincinnati. He leaves a wife and several sons and daughters.

DR. CLIFFORD MORROGH.

Dr. Clifford Morrogh, while riding through New Brunswick, N. J., about 5 o'clock on the afternoon of the 13th of March, fell back into the arms of Dr. Donahue, his student, and died just after reaching his home. He was 58 years old, and was a leading physician of the city. He was graduated from the University of New York in 1850.

QUERIES AND REPLIES.

W. S. A., Mo.—We have never heard such precautions as you refer to recommended by any one.

S. C. C., Ind.—Your first question is too vague; what do you mean by *cirrhosis* of the stomach? To your second question, Yes, under ordinary circumstances, although at times, the histological appearances approach each other very closely.

MARRIAGE.

CURTIN — ROBINSON. — At Hartford, Conn., March 21st, 1882, by the Rev. Jos. P. Taylor, of Camden, N. J., Roland G. Curtin, M.D., of Philadelphia, and Julia T. Robinson, daughter of Mr. Edwin Taylor, of Hartford.

DEATHS.

HARRIS.—In this city, on the 10th ultimo, Dr. Jas. S. Harris.

HASTINGS.—On February 27th, John McD. Hastings, M.D., son of Rev. J. M. Hastings, of Germantown, Pa., in the twenty-seventh year of his age.

TOMLINSON.—In Cincinnati, Ohio, Dr. I. H. Tomlinson, aged 59 years, of apoplexy, February 26th, 1882.

KING.—At Newport, R. I., March 7th, 1882, Dr. David King, aged 70 years.